EUROPEAN
COMMISSION

Brussels, XXX
SWD(2024) 614/2

SENSITIVE*
UNTIL ADOPTION

COMMISSION STAFF WORKING DOCUMENT

2024 Country Report - Latvia

Accompanying the document

Recommendation for a COUNCIL RECOMMENDATION

on the economic, social, employment, structural and budgetary policies of Latvia

{COM(2024) 614}

* Distribution only on a 'Need to know' basis - Do not read or carry openly in public places. Must be stored securely and encrypted in storage and transmission. Destroy copies by shredding or secure deletion. Full handling instructions https://europa.eu/!db43PX

European Commission

Latvia

2024 Country Report

#EURO at 25



ECONOMIC AND EMPLOYMENT SNAPSHOT

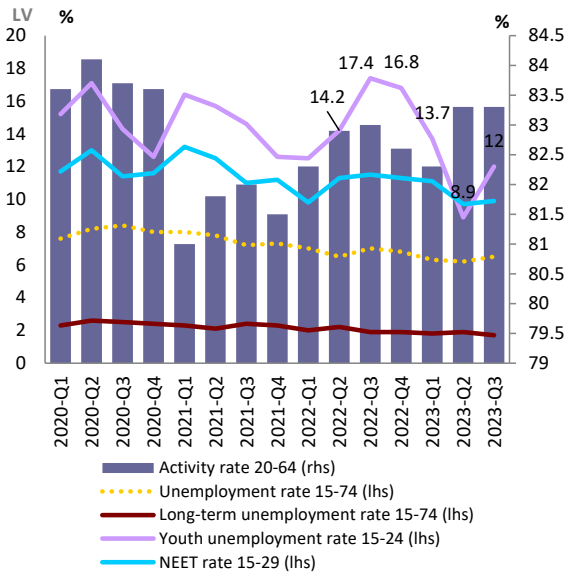
Latvia's economy shows signs of resilience after recent headwinds

In 2023, economic growth in Latvia was negatively affected by eroded purchasing power, which was experienced throughout the EU due to high inflation in 2022 following a surge in energy prices ([1]). As a result, both private consumption and exports slowed down significantly, especially in the first half of 2023. The Latvian economy contracted by 0.3% in 2023. As energy prices started to decline in the second half of the year, inflation also slowed down greatly, reaching an annualised 0.9% in December 2023. In addition, foreign investors are now holding back investments in Latvia due to perceived geopolitical risks.

Rising interest rates also took a toll on the Latvian economy. Most business and household borrowers pay interest at a variable rate on existing loans, which means that rising interest rates have quickly translated into higher costs for servicing debt. To address this, on 6 December 2023 the Latvian Parliament passed measures to help existing mortgage borrowers by reducing their interest payments by 30%, by a maximum of 2 percentage points of the interest rate they would ordinarily pay in 2024. To finance the measure, a tax of 0.5% of the total amount of mortgage loan balances will reduce excess profits from banks and credit providers operating in Latvia. The total cost of the mortgage-interest-reduction measure is estimated at around EUR 100 million, while banks' pre-tax profits in 2023 reached around EUR 700 million, compared with EUR 350 million in 2022. Rising debt-service costs have not yet affected the quality of banks' credit portfolio, as the share of non-performing loans as a percentage of total loans decreased to 1.2% in Q3 2023, the lowest level since the financial crisis in 2008.

A slow recovery is expected in 2024. Private consumption is forecast to recover in 2024 on the back of receding inflation and rising real incomes. In addition, investments are set to remain strong, due to public and EU-funded investments (see Annex 20).

Graph 1.1: **Selected labour-market indicators**



Source: Eurostat, Labour force survey

The Latvian labour market has remained tight, and real wages have been increasing since the second half of 2023. The unemployment rate slightly increased in the last quarter of 2023 (to 7% in Q4 2023 vs 6.4% in Q3 2023) as the employment rate (77.5% in 2023) returned to its pre-pandemic level. Overall, the labour market has performed reasonably well (see Graph 1.1.). As nominal wage growth (11.9% in 2023) outpaced inflation (9.1% in 2023), real disposable incomes started to increase slowly

([1]) The cut-off date for the data used to prepare the 27 Country Reports was 15 May 2024.

in the second half of 2023 after a significant decrease of -3.9% in 2022. Real wages are expected to continue increasing in 2024 as inflation is forecast to ease significantly. However, both skills shortages and lower productivity (compared with the EU average) could hamper Latvia's competitiveness in the long term (see Annex 14).

Despite Latvia's low level of public debt, there are some fiscal challenges on the horizon. Latvia has generally run prudent fiscal policies and kept its public finances on a solid footing. This helped the Latvian economy to withstand the shock caused by the COVID-19 crisis and high energy prices. The general government deficit increased from 0.5% of GDP in 2019 to 7.2% in 2021 before falling back to 2.2% of GDP in 2023, reflecting both the substantial fiscal impact of pandemic-related support and measures aiming to mitigate the impact of high energy prices, and subsequent gradual phasing out of this support. Latvia experienced a rather substantial overall increase (7 percentage points) in public debt between 2019 and 2023, while still having one of the lowest public-debt stocks of all EU Member States (43.6% of GDP in 2023). However, government finances will come under pressure in the future due to: (i) the government's medium-term commitments to strengthen internal and external security; (ii) substantial financing needs to improve public services; and (iii) the implementation of large-scale EU co-funded infrastructure projects. Similarly, businesses and households continued to show resilience and there has not been a noticeable increase in bankruptcies.

Addressing the remaining socioeconomic challenges to strengthen competitiveness

Latvia's GDP per capita is significantly below the EU average, and the pace of convergence with other EU Member States is slowing. In 2023, Latvia's GDP per capita was 71% of the EU average, which is only 2 percentage points higher than in 2018. In addition, its income level is significantly below the level of its Baltic peers – Estonia's and Lithuania's GDP per capita were respectively 81% (-1 percentage points compared with 2018) and 87% (+6 percentage points compared with 2018) of the EU average in 2023 ([2]). Latvia's productivity growth of 11% between 2018 and 2023 has been good. This is well above the EU average of 2.8%, and slightly higher than its Baltic peers. However, the share of the population in employment has been declining due to ageing, and this has dampened the impact of productivity gains on GDP per capita. The key convergence challenges for Latvia are: (i) an ageing population; (ii) skills shortages (see Annex 14); (iii) poor health outcomes (see Annex 16); (iv) weak innovation performance (see Annex 11); and (v) regional disparities (see Annex 17).

Inequality and poverty remain high, linked to poor redistribution of income through the tax and benefit system. Latvia's tax revenue as a share of GDP is below the EU average. The labour-taxation system is less progressive than the EU average, with low-income earners exposed to a proportionately greater tax burden (see Annex 19). Public spending on social protection remains among the lowest in the EU and is therefore less effective at reducing poverty and inequality than other EU countries, as reflected in the Social Scoreboard accompanying the European Pillar of Social Rights (see Annex 14).

Social protection and inclusion of the most vulnerable people in Latvia is also hindered by the limited set of services offered to them. The provision of social services remains fragmented across municipalities (e.g. home-care, daycare centres, shelters), with unequal access and quality of the support provided. The proportion of the Latvian population reporting unmet needs for medical care remained among the highest in the EU, with people in lower income groups disproportionately affected. Latvia's long-term care system remains underdeveloped. Moreover, there is a high

([2]) Expressed in Purchasing Power Standards.

Box 1: **Latvia's competitiveness in brief**

Latvia's competitiveness is gradually improving. Latvia is well integrated into the single market, as its trade with other EU countries accounted for more than half of its GDP in 2022. Transposition and conformity deficits (i.e. failing to transpose EU legislation into national law and failing to conform with EU rules) are in line with EU averages. Industry's share in the economy has increased but remains below the EU average (see Annex 12). However, three main competitiveness challenges remain:

- **skills shortages** which hold back productivity, labour supply and the green and digital transition;
- **a difficult business environment** with cumbersome business regulations, a pervasive shadow economy and limited availability of finance, in particular for SMEs;
- **low private investment and innovation performance**.

level of housing deprivation and overcrowding, while access to social housing is limited as the stock is small and often of poor quality (see Annex 14).

Significant regional disparities continue to affect Latvia's competitiveness. Gaps persist between the capital region around Riga and other regions in GDP per capita; the share of people at risk of poverty; labour productivity; and employment. Furthermore, Latvia is facing a negative demographic trend when comparing the capital region with the rest of the country – the capital region has a younger and growing population, while areas outside the capital are ageing and declining in population. In the past decade, the country experienced a significant decline in population (falling 6.4% from 2014 and 2024). In the short term, depopulation trends may lead to labour shortages and pressure on both wages and public services, especially in the least developed regions (see Annex 17).

Box 2:

UN Sustainable Development Goals (SDGs)

Latvia is making progress in all SDGs related to competitiveness and productivity (SDGs 4, 8, 9). However, it needs to step up efforts to close the gap with the EU average on SDGs 8 (Decent work and economic growth) and 9 (Industry, innovation and infrastructure). Latvia's performance on SDG 9, which relates to innovation, industry and sustainable infrastructure, is below the EU average. This is mostly due to low R&D expenditure and low levels of patent applications. Indicators of sustainable economic growth (SDG 8) are below the EU average, with real GDP per capita less than half of the EU average in 2023 and a large material footprint. Although its employment indicators are generally better than the EU average, Latvia performs worse on indicators related to decent work, largely due to a high rate of fatal accidents at work and a high rate of people who are in work but at risk of poverty. Latvia is improving on several SDG indicators related to fairness such as those dealing with the long-term unemployment rate and early leavers from education and training (SDGs 1, 3, 4, 5, 7, 8). However, it still needs to catch up with the EU average for SDG 10 (Reduced inequalities).

Out of the 17 SDGs, Latvia performs below the EU average on 10. These relate to environmental sustainability (SDGs 11, 12, 13), fairness (SDGs 1, 3, 5, 8, 10), productivity (SDGs 8 and 9) and macroeconomic stability (SDGs 8 and 16) (see Annex 1).

IMPLEMENTATION OF KEY REFORMS AND INVESTMENTS USING EU INSTRUMENTS

Funding from the Recovery and Resilience Facility (RRF) and cohesion-policy funding is mutually reinforcing Latvia's efforts to boost its competitiveness and foster sustainable growth. In addition to the EUR 1.97 billion of RRF funding described in Annex 3, cohesion policy provides Latvia with EUR 4.4 billion for the 2021-2027 period. Support from these two instruments represents around 15.87% of the country's 2023 GDP, compared to the EU average of 5.38% of GDP (see Annex 4).

Under its recovery and resilience plan (RRP), Latvia has launched important policy measures that are expected to improve its competitiveness. In particular, the RRP envisages reforms in the areas of digitalisation of business; digital literacy; healthcare; minimum income support; housing affordability; higher education; improvement of skills for adults; and the modernisation of public administration. Latvia also undertook substantial investments in these areas as well as in the energy efficiency of buildings and businesses, and in the reduction of inequality and regional disparities (for example support to the reorganisation of the school network in the regions).

The implementation of Latvia's recovery and resilience plan is well underway. Latvia submitted two payment requests, corresponding to 52 milestones and targets in the plan. By mid-May 2024, this has resulted in an overall disbursement of EUR 465 million with another EUR 336 million planned to be disbursed by the end of the May. Beyond the second payment request, the implementation of the plan is broadly on track (see Annex 3).

Cohesion-policy funding helps tackle Latvia's growth and competitiveness challenges and reduce the country's territorial and social disparities. During the 2014-2020 programming period, cohesion-policy funding support focused on the areas of: support to enterprises, energy efficiency, transport, and the upskilling and reskilling of the workforce. For the current 2021-2027 programming period, support from cohesion policy is aimed at: (i) strengthening Latvia's competitiveness; (ii) accelerating the green transition; (iii) improving social cohesion; (iv) improving the living and working conditions of Latvia's people; (v) improving the quality of education; and (vi) improving the range of reskilling and upskilling opportunities.

Accelerating the green and digital transitions

Latvia's RRP includes an important reform aimed at rationalising and greening Riga's metropolitan transport system. The reform is complemented by investments in railway electrification, zero-emission public transport and cycle lanes. The regulatory framework for the implementation of the investments has been developed. For several investments, project selection has been finalised and implementation has started. The investments are due to be completed by 2026. Measures planned under other EU funds will complement the RRP efforts by delivering environmentally friendly rolling stock for collective public transport, decarbonising industry, and deploying or refurbishing railway infrastructure.

Latvia has taken steps to improve energy efficiency in businesses and in buildings. Under its RRP, Latvia has already launched a series of support programmes for energy-efficiency improvements in: (i) businesses; (ii) residential buildings and infrastructure; and (iii) public-sector buildings and infrastructure. The RRP also supports investments in energy-

efficient equipment and renewable-energy technologies. The RRP also contains plans to build at least 300 eco-friendly, high quality and affordable apartments, and the European Regional Development Fund (ERDF) and Cohesion Fund are also supporting improvements to the energy performance of 13 450 dwellings, helping households to better overcome the challenges of the green transition.

Latvia aims to increase climate change adaptation and preparedness for natural hazards. Under the RRP, the Latvian government has laid the groundwork for the implementation of a national disaster-risk management system. The RRP also contains plans to invest in the construction of both: (i) environmentally friendly disaster-management centres across the country; and (ii) infrastructure to reduce the risk of floods. The ERDF will complement efforts in this area by investing in new or upgraded equipment to prepare for, warn about, monitor and respond to natural hazards.

Latvia is taking steps to accelerate the deployment of renewable-energy capacity and strengthen and modernise its electricity grid. The reforms' main objectives are to: (i) accelerate the deployment of renewable-energy capacity; (ii) promote self-consumption and energy communities; and (iii) improve the efficiency and flexibility of the electricity grid. The investments accompanying the reforms focus on delivering new electricity grid capacity, modernising and digitalising the electricity grid, and increasing the uptake of sustainable biomethane. Electricity grids are fundamental enablers of the green transition, and investments in their upgrading and digitalisation are key for ensuring access to competitively priced electricity. The REPowerEU chapter will also help to deliver a new battery electricity storage system, a priority in Latvia's effort to complete the synchronisation of its electricity network with the continental European network by February 2025. In this area, the RRP complements the financial support provided through the Connecting Europe Facility. For some investments, the notification to beneficiaries of the award of contracts for projects has already been concluded. Most of the investments will be completed in 2026.

Reforms and investments in the digital transition increase competitiveness and the development of skills. Latvia has set up a framework for a unified ICT governance architecture for public administration services. This framework will enable the digital transformation and management of public processes/services. The framework will be reinforced by the cohesion-policy funding, which will further support the digitalisation of public administration. In 2022, two European Digital Innovation Hubs were set up in Latvia to facilitate the digital transformation of businesses and public-sector organisations by providing access to digital maturity testing and development of a digitalisation roadmap, consulting services and specialised training. This will increase digital innovation capacity, improve digital skills in enterprises, and boost digital competitiveness. This action is complemented by the cohesion-policy funding, under which 1 750 Latvian enterprises are expected to reach high levels of digital intensity. Reforms and investments that address digital skills (see Annex 10) are set out in the Latvian RRP, starting with establishing (i) a common framework for the assessment of basic digital skills, identification and planning of training needs; and (ii) amending national higher education standards to determine the expected outcomes in gaining digital competencies. These actions aim to improve the digital skills of adults, enabling them to compete successfully in the labour market and participate fully in the processes of modern society.

Fostering smart and inclusive growth, and improving social and territorial cohesion

Latvia has made progress in improving social and territorial cohesion. To facilitate investment in the regions outside of the greater Riga area, there is a need to strengthen the capacity of municipalities in Latvia. Following on from Latvia's

Box 3:

Combined action for more impactful EU funds

To boost economic growth and maximise the impact of EU funding, Latvia's RRP includes reforms that support investments under other EU instruments, creating important synergies and complementarities between the various funds. For example, the Latvian RRP includes plans for a broad reform of higher education that aims to increase the international competitiveness of its higher education institutions. The reform consists of three pillars: (i) a change in governance structure by both separating academic decision-making from strategic decision-making and involving external members in the governance institutions of higher education; (ii) the adoption of performance-based funding principles; and (iii) the adoption of a unified career model for academic and scientific staff. The reform is coupled with RRP grants for investments in digitalisation, technological development, and improvements in the research capabilities of universities. The grants are available to universities that merge with other universities, thus helping them to better integrate and incentivising the consolidation of universities in the system. The reform will also directly underpin cohesion-policy funding investments in higher education, including management improvement, improvements in education and research infrastructure, the creation of new study programmes, and funding for centres of excellence for scientific research

administrative territorial reform in 2021 and in the context of the RRP, the Municipality Law entered into force in 2023 improving local governance. The development of industrial parks in the regions outside Riga will: (i) help to create high-added-value and export-oriented jobs; and (ii) reduce the divide between the Riga region and the rest of the country. In 2023, Latvia also adopted a housing affordability strategy, which includes plans to provide affordable housing in regional centres, thus contributing to regional labour mobility. The planned reorganisation of the country's school network is set to improve the quality of education in regional schools. While the RRF investment focuses on developing and equipping educational institutions' infrastructure, the cohesion-policy funding will complement this also by helping to deploy advanced general education content and equipment.

In its RRP, Latvia has set out to boost its innovative capacity by reforming its higher education systems and its system for innovation support. The Latvian innovation sector's main challenges are low levels of funding and a lack of skilled staff. Latvia's public and private spending on R&D have long been among the lowest in the EU, even though they have improved recently (see Annex 11). The combined RRF and cohesion-policy funding for innovation investments exceeds EUR 500 million between 2021 and 2027 and is expected to give a boost to R&D spending in Latvia. Moreover, these investments are coupled with a reform of innovation-system governance, which aims to: (i) improve collaboration and linkages between sectors; and (ii) better integrate the entire value chain of innovation. To achieve this, the Latvian government has redefined the tasks of the parties concerned, written a new innovation strategy, and set objectives that the parties will have to achieve. The new innovation system became operational in 2023. Moreover, there has been a reform of higher education, the main aim of which is to improve the governance of universities and introduce new funding principles for the sector (see Box 3).

Supporting health and strengthening institutional resilience

In healthcare, the RRP aims to address challenges in resilience, access, quality and integration across different levels of care. Progress is being made in both developing integrated healthcare and improving epidemiological safety by investing in university and regional hospitals. Latvia has also adopted a strategy for the digital health sector in 2023. The development and deployment of digital solutions in the health

sector will be supported with cohesion-policy funding. This will complement ESF+ investments to attract and train medical staff and further develop a quality-assurance framework for healthcare.

In the area of rule of law, the RRP consists of four subparts that address key challenges in tax compliance, law enforcement dealing with economic crime, public administration, and public procurement. In 2023, the Latvian government adopted both a plan to modernise the public administration and a concept report on the Shared Service Centre, which will be responsible for the central processing and execution of certain functions such as financial accounting and human resources. Furthermore, the Technical Support Instrument is helping the Latvian authorities to design a national innovation strategy ([3]), which will be used to build up an innovation lab under the Latvian RRP by 2025. The measures will provide a further boost to increasing the efficiency, transparency and accountability of the public administration.

([3]) 22LV21 – Further development of the innovative capacity of the public sector.

FURTHER PRIORITIES AHEAD

Latvia faces additional challenges related to taxation and tax compliance, poverty and social inclusion, healthcare, business environment, labour and skills shortages, and the transition to clean energy and a green economy. Tackling these challenges will help increase Latvia's long-term competitiveness and ensure the resilience of its economy and foster the wellbeing of its people. It will also help it to make further progress in achieving the SDGs.

It is important that the identified challenges are addressed at both the national and regional level to reduce regional disparities and improve administrative and investment capacity in a balanced way across the country.

Low and stagnating tax revenue limits the funding of public services

Latvia's tax revenue remains low, limiting the funding available for public services. In 2022, the share of tax revenues decreased to 30.3% of GDP (against an average of 40.2% of GDP in the EU), the lowest level in the last 3 years. In the types of taxation less detrimental to growth, in particular taxes on capital and property, Latvia still collects lower revenues than the EU average. In 2022, Latvia's capital taxes were 2.6% of GDP vs an EU average of 8.9%; and its property taxes were 0.8% of GDP vs an EU average of 2.1% (see also Annex 19). While revenue from corporate income tax has been gradually recovering after the sharp downward correction following the 2018 tax reform ([4]), in 2022 revenue from corporate income tax as a share of GDP had still not reached the pre-reform level, and also remained significantly below the EU average. A reform of the cadastral system for property taxation to reflect current market values has not yet been adopted.

New tax-policy guidelines for 2024-2027 are under development, with substantial tax changes expected in 2026. The tax reform is still a work in progress and new tax-policy guidelines are expected to be finalised by the end of June 2024. However, the main directions of the reform have already been outlined. Firstly, Latvia will maintain its current corporate income tax arrangements (companies pay corporate income tax only on profits distributed as dividends, to which a 20% rate is applied). Secondly, it will revise its environmental tax to contribute to the green transition. Thirdly, Latvia will review labour taxation to deal with the challenge of labour supply. Fourthly, it will bring the minimum wage closer to the level of the other Baltics. And finally, Latvia will conclude the reform of its immovable property tax. Another important measure planned as part of the tax reform is the development of a sustainable financing model for healthcare.

Limiting the shadow economy remains a priority. According to surveys of company owners and managers ([5]), the size of Latvia's shadow economy remained practically unchanged in 2022 compared with 2021 (26.5% of GDP in 2022 compared with 26.6%

([4]) According to the study by the Ministry of Finance, despite the lower tax revenue, the tax reform has contributed to the growth of companies' equity, providing an opportunity for companies to develop even under stagnant lending conditions. Source: https://www.fm.gov.lv/lv/media/16563/download?attachment

([5]) Sauka & Putnins (2023).

of GDP in 2021) ([6]). The most significant component of Latvia's shadow economy in 2021 was the under-reporting of salaries, which accounted for 46.2% of the total shadow economy. And based on the latest surveys, under-reporting of salaries further increased to 46.7% of the total shadow economy in 2022. The construction sector made the largest contribution of any sector to the shadow economy in 2022. Meanwhile, combating the shadow economy remains a policy priority for the Latvian government. Further actions will be based on the recently adopted 2024-2027 action plan to combat the shadow economy. The plan has been developed based on research by a team of independent experts ([7]) and aims to reduce the shadow economy by 1% annually.

Although the VAT gap continues to decrease, other indicators on tax compliance and tax progressivity justify the need for further policy action. Although the estimated loss of tax revenue from undeclared wages has increased in recent years ([8]), outstanding tax arrears remained well below the EU average. Latvia's VAT gap ([9]) continued to decrease substantially and was forecast at 4.0% in 2022. Meanwhile, an analysis by the State Revenue Service of taxpayer segmentation ([10]) finds that the tax compliance of 43.2% of taxpayers should be improved. This shows that Latvia has the potential to gain more tax revenue. In 2022, the labour tax wedge (measures the burden of tax and social security contributions relative to labour cost) for single people earning less than the average wage was still higher than it was in both other Baltic countries and the EU average. This indicates that the labour tax system in Latvia is less progressive than in the EU on average. At the same time, improvements in the ability of the tax and benefits system to reduce income inequality ([11]) have stalled in recent years and remained well below the EU average.

Carrying out EU co-funded investment at the planned pace remains challenging. EU co-funded investments in 2022 and 2023 were lower than initially budgeted, mainly due to slower uptake of investment support under both the RRF and the 2021-2027 structural funds planning period. This was partly due to delays in the adoption of regulatory acts as well as limitations to implementation capacity by public and private bodies at the national level. Up-to-date execution data and recent estimates indicate a more gradual absorption curve also in the medium term ([12]). This risks discouraging investment, and will hold back the country's growth potential.

Tackling poverty and income inequality remains a challenge

The levels of poverty and income inequality in Latvia remain very high against a background of the challenges brought by high inflation. Income inequality is high and widening. In 2022, the income of the richest 20% of the population was 6.33 (vs 4.74 in the EU) times higher than the poorest 20%. Latvia had one of the highest percentages of people at risk of poverty and

([6]) Schneider, F.G., *New COVID-related results for estimating the shadow economy in the global economy in 2021 and 2022* (2022). This work indicates that the shadow economy in Latvia remains above EU average.

([7]) In 2020-2023, the national research programme 'Reduction of the shadow economy for ensuring the sustainable development of the country' was implemented. Source: https://www.fm.gov.lv/lv/petijumi-par-enu-ekonomikas-apjomu

([8]) State Revenue Service presentation on undeclared wages and tax gaps, August 2023 https://www.vid.gov.lv/lv/media/18936/download?attachment

([9]) An estimate of the overall difference between the expected revenue from value added tax and the amount actually collected.

([10]) Methodology of grouping taxpayers in clusters based on their behaviour models in the context of their tax compliance. Source: SRS unpublished documents, February 2024.

([11]) Determined by the difference in Gini coefficient before and after taxes and cash social transfers (excluding pensions).

([12]) https://www.esfondi.lv/assets/zi%C5%86ojumi/mk/2024/1_2023-decembris-2024-janvaris/esfondi_fmdivm_mk-31.01.2024.pdf.

social exclusion in 2022, at 26% for the overall population compared with 21.6% in the EU. The risk of poverty for people aged 65+ was the highest in the EU (40.5% vs 17.3% in average in the EU). Pensions are among the lowest in the EU compared with wages, as the aggregate replacement ratio (the pension payment as a proportion of income from employment) in 2022 was 0.42 in Latvia, compared to 0.58 in the EU. Single-adult households with dependent children and people with disabilities are also particularly vulnerable to poverty (see Annex 14).

Improving the adequacy of social assistance and access to services remains a challenge. The adequacy of social assistance and the provision of services to vulnerable groups (including the provision of affordable care and social housing) continues to pose a challenge. The provision of social services remains fragmented across municipalities, with unequal access and quality of support provided. The timely implementation of the national minimum social services basket reform will be crucial. This will make the provision of some social services mandatory at local level. The impact of social transfers (excluding pensions) on poverty in Latvia is substantially less than the EU average (23.5% of reduction of at-risk of poverty in Latvia vs 35% in the EU) (See Annex 14).

Latvia's housing stock is outdated and of poor quality, which has a negative social impact. Latvia's share of people living in an overcrowded household (40.9% vs 16.8% in the EU, 2023) and its share of people living in severe housing deprivation (10.3% vs 4.2% in the EU, 2020) are among the highest in the EU. Increased housing benefits coupled with the RRP investments in low-rent housing as well the ERDF investments in social housing will make a positive contribution, however the poor quality and limited availability in municipalities of existing social housing for vulnerable groups still poses a challenge, due to the sheer size of the task. Existing renovation programmes do not target vulnerable groups as primary beneficiaries. Furthermore, there is no established definition of homelessness in the national legal framework, nor does Latvia have a comprehensive system to collect data on homelessness. Latvia's newly adopted housing-affordability strategy also fails to address homelessness.

Significant socioeconomic differences across regions persist and they are highlighted by differences in: (i) the unemployment rate; (ii) the rate of people at risk of poverty and social exclusion; and (iii) the number of early school leavers. These are all higher in rural areas than in more urbanised areas. For instance, in 2021, 31.6% of the rural population was at risk of poverty or social exclusion, while the rate was 23.8% in towns and suburbs and 22.4% in cities (see Annex 17).

Providing sufficient resources for healthcare and long-term care

The health and long-term care sectors in Latvia are underfunded, and this limits access to quality and timely care. Health expenditure in Latvia is among the lowest in the EU, and 69.5% of it was publicly funded in 2021. Public spending on long-term care is also low (0.5% of GDP vs an average of 1.7% of GDP in the EU in 2022). Inadequate funding for care leads to long waiting times, a high level of unmet needs, and a limited range of care offered. Consequently, the proportion of the Latvian population reporting unmet needs for medical care is among the highest in the EU and increasing (5.4% in Latvia in 2022 compared with 2.2% across the EU), with lower income groups disproportionately affected. The share of out-of-pocket spending on healthcare is high in Latvia (27% in 2021 compared with an EU average of 14.5%) and similarly high for long-term care (see Annexes 14 and 16).

Public financing for health as a share of GDP is stagnating. According to the government's medium-term budgetary

plans ([13]), in 2023 public spending on healthcare as a share of GDP returned to the 2020 level of 4.8% of GDP. This demonstrates that, despite the increased nominal allocations of additional budget spending, this position expressed as a share of GDP has been stagnating if we disregard the temporary increase during the pandemic (when healthcare spending surged to 6.3% of GDP in 2021). This is low not only compared with the EU average (7.7% of GDP in 2022 ([14])), but also when compared with the level of necessary public financing for healthcare of 6% of GDP by 2027, as indicated in Latvia's 2021-2027 guidelines for public health policy.

The persistent shortages of health professionals are an obstacle to providing healthcare. The number of practising doctors per 1 000 inhabitants in Latvia is below the EU average. The number of practising nurses per 1 000 inhabitants is also one of the lowest in the EU and has declined in recent years. The Ministry of Health has estimated that the health sector currently requires around 4 900 additional nurses (see Annex 16). The shortages of health workers are more acute in areas outside Riga. Poor working conditions are a significant reason for this, with low pay being a deterrent to both entering and remaining in the public sector, particularly for nurses.

Improving the business environment

Private investment is held back by both weakness in the business environment and the high cost of credit. SMEs in Latvia find it more difficult to get credit than those in other euro area countries ([15]). At 14.9% of GDP in 2022, business investment in Latvia is somewhat below Estonia's level of 16.5% of GDP and slightly higher than the 13.1% of GDP in Lithuania. However, levels of net private investment have consistently remained one of the lowest in the EU, amounting to 0.5% of GDP compared to the EU average of 3.5% over the past 5 years. Results from the 2023 EIB investment survey suggest that private investment in Latvia is affected by high uncertainty, a lack of skilled staff and high energy costs. In 2023, 77% of Latvian firms said they perceived business regulations to be a long-term obstacle to investment, much higher than in their Baltic neighbours (Estonia, 46%; Lithuania 52%) and one of the highest percentages in the EU (see Annex 12). After a prolonged drop in the preceding years, lending activity to non-financial corporations increased temporarily around the end of 2022 and the beginning of 2023 thanks to increased activity in the commercial real estate sector. However, lending to other sectors remained sluggish throughout the year. The weak lending is partly due to low investment activity (particularly in real estate) and the cost of credit, which in Latvia is among the highest in the euro area.

The shadow economy is a longstanding problem that leads to an unlevel playing field and negative impacts on Latvia's competitiveness. Besides lowering tax revenue, the high share of the shadow economy is a major challenge since it impacts transparency and trust in the business environment. According to Latvian business organisations, the shadow economy distorts competition and incentivises businesses to remain small. In Latvia, SMEs account for 70% of value added, which is significantly above the EU average of 50%. Moreover, Latvian banks say that the prevalence of the shadow economy and weak company balance sheets are also key obstacles to greater business lending. The 2018 reform of corporate income tax, which allowed companies to pay corporate income tax only on profits distributed as dividends, is widely regarded to have improved the health of businesses' balance sheets. However, there is still substantial scope for increasing the number of eligible borrowers by reducing informality and fostering an increase

([13]) The 2024 Stability programme of Latvia estimate that government expenditure on health would decline to 4.1% of GDP in 2028 (from 4.8% in 2022, according to the Eurostat).

([14]) General government expenditure by function (COFOG), Eurostat.

([15]) SWD (2023) 614 final

in the average size of companies. Measures to increase competition in the banking sector are also being discussed, including a reduction in switching fees and broadening the lending mandate of the State-owned development bank Altum.

Labour and skills shortages hamper competitiveness

Latvia faces skills shortages in the context of a declining supply of workers. The working-age population is set to decline in the coming years as older people retire and are not replaced by equal amounts of younger workers. This will result in labour shortages. The general vacancy rate for all activities increased from 2.1% in 2020 to 2.8% in 2022 and remained at 2.8% in Q3 2023. By skill level, the greatest shortages appeared in medium-skilled occupations, accounting for 62.7% of all vacancies (see Annex 14). In addition, according to the 2023 EIB investment survey, 91% of Latvian firms cite a lack of skilled staff as a barrier to investment, well above the EU average (81%). The low proportion of graduates in science, technology, engineering and mathematics (STEM), and the subsequent lack of researchers and PhD graduates is one of the main barriers that make it difficult to strengthen the Latvian R&I (research and innovation) system, especially in the private sector (see Annex 11). There is a low rate of participation by workers in policy measures to help people find training or jobs, coupled with insufficient training opportunities that teach skills needed by employers, as demonstrated by the skills shortages.

The increasing skills shortages could be alleviated by further increasing upskilling and reskilling measures. In the medium-to-long term, the demand for employees with medium-level and higher education qualifications in STEM is set to increase, while the demand for low-skilled workers is on the decline. By 2030, the most significant shortages, across all skills levels, are expected in engineering, manufacturing and construction (about 48 000 jobs) and sciences, mathematics and IT (7 000). Shortages are also expected in healthcare and social care (3 600). Further strenghtening of adult learning could play a significant role through upskilling and reskilling to alleviate these skills shortages.

The green transition requires upskilling and reskilling in energy-intensive industries. In Latvia, 33% of SMEs think that skills required for greening business activities are becoming more important (EU: 42%). In line with the EU renewable-energy target, by 2030 up to 1000 additional skilled workers will be needed in Latvia for the deployment of wind and solar energy (see Annex 8). To increase the uptake of green skills, collaboration with social partners and other relevant stakeholders is essential.

Regional disparities in access to quality education and barriers to participation in adult education in particular remain key challenges for effective life-long learning. Access to quality education is dependent on a person's place of residence, with larger urban schools performing better than smaller, rural ones. Latvia's teachers are among the oldest in the EU. Low levels of statutory pay and high workloads contribute to making teaching relatively unattractive (see Annex 15). With the support of EU funding, the government is pursuing efforts to consolidate the school network in the regions (see Annex 4). Similarly, while general participation in adult education is somewhat improving, teacher and trainer shortages persist. The publicly funded measures to increase training opportunities fail to reach low-skilled workers due to insufficient targeting ([16]). Measures in this area could help Latvia reach its 2030 national skills target.

([16]) Source: State Audit Office (2022) report 'Vai pieaugušo izglītība sasniedz tai izvirzītos mērķus un atbilst darba tirgus vajadzībām? | Valsts Kontrole (lrvk.gov.lv)'.

Deployment of renewables, energy efficiency and decarbonisation

Additional efforts are needed to accelerate the deployment of solar and wind capacity. In 2022 and 2023, Latvia experienced an increase in the installed capacity for solar and wind power, but these capacities remain significantly below the levels installed in both Estonia and Lithuania. Latvia enjoys one of the highest shares of energy from renewable sources in the EU, which is mostly attributable to power production from hydro plants and the high use of biomass in the heating sector (see Annex 7). Nevertheless, the country still has scope to further diversify its renewable-energy sources. To increase its share of renewables in final energy consumption, Latvia would particularly benefit from tapping into wind and solar power by scaling up production from these sources. Under its RRP, Latvia has committed to taking action to promote onshore wind energy and remove certain regulatory barriers to its deployment. Moreover, legislative amendments made in 2022 are expected to facilitate the development of renewables, in particular onshore wind and solar energy. Despite these actions, Latvia could step up efforts to: (i) remove the remaining barriers in permitting for renewable energy; (ii) increase demand-side flexibility; (iii) promote demand response and storage; and (iv) promote large-scale power-purchasing agreements. In particular, a virtually overbooked – though underused – grid is hampering the deployment of renewables. This shows there is a need for further regulatory action to remove bottlenecks and enable swift implementation of mature renewable-energy projects. Besides those renewable-energy projects planned under the RRP, additional investments in upgrading the national grid are warranted, not least in light of increasing needs for electrification and decarbonisation. Electricity grids are fundamental enablers of the green transition.

Timely synchronisation of Latvia's electricity network with the continental European network remains a priority. Preparations to synchronise the electricity grids of the Baltic countries with the continental European network are advancing well and the project is expected to be finalised by February 2025. This synchronisation project also includes Latvia, Lithuania and Estonia. Timely finalisation of the project is of the utmost importance to ensure a smooth disconnection from the network operated by Russia and Belarus and the integration of the Baltic states into the continental European network. The region's energy security can be further improved by ensuring that electricity interconnections have sufficient capacity. To that end, further cooperation with Lithuania and Estonia is crucial.

Latvia would also benefit from: (i) more ambitious energy-efficiency measures in the buildings and industry sectors; **and (ii) greater efforts to decarbonise the transport sector.** In implementing the EU's energy-savings obligation for 2021-2030, Latvia opted for a mix of seven policy measures, including an energy-efficiency obligation scheme. It is crucial for Latvia to ensure sufficiently ambitious energy-saving measures for the whole of this period if it is to achieve the required amount of cumulative end-use savings by 2030. The swift and effective implementation of energy-efficiency projects financed by both the RRF and cohesion-policy funding is fundamental. Latvia could expand renovation programmes to reach the ambitious targets set by its long-term renovation strategy and better target these programmes to reduce energy poverty. Energy-efficiency and renovation programmes have so far been excessively dependent on the availability of EU funding, and public national spending capacity is limited (see Annex 7). Latvia would therefore benefit from enabling more private investments in this area. Latvia could also take steps to remove administrative barriers preventing energy performance contracting in the public sector. On the transport sector, which is still powered almost entirely by oil, Latvia is making only slow progress towards decarbonisation. The country would especially benefit from further electrification of rail transport and from providing more incentives to increase the

share of low- and zero-emission vehicles in its passenger car fleet (see Annex 6).

Indicators of sustainable economic growth for Latvia are below the EU average and the country's material footprint is on the rise (see Annex 1). Resource productivity has stagnated and is lower than the EU average. Latvia's circular material use rate was only 5.4% in 2022, about half the EU average of 11.5%. The country relies on material imports more than the EU average, making it more vulnerable to supply-chain disruptions.

Eco-innovation and efforts to improve resource efficiency remain important for the transition towards a circular economy. Although Latvia has made significant progress with its waste-management system in the last decade, it still landfills more than a half of its municipal waste and is assessed to be at risk of missing the EU's target to recycle 55% of its municipal waste by 2025 (see Annex 9). Net greenhouse-gas emissions from land use, land use change and forestry have fluctuated widely since 2017. Latvia projects that this sector will generate net emissions instead of net removals by 2030 ([17]) (see Annex 6). The country is an average performer in eco-innovation, and implementation of circular business models and boosting R&D investment in eco-innovation could increase resource productivity and competitiveness (see Annexes 5, 9 and 11). Overall, Latvia would benefit from increasing the efficiency of sustainable land and forest management and transitioning further to a circular economy by stepping up resource-efficiency measures and improving further its waste-management system.

([17]) Projections submitted in Latvia's draft updated national energy and climate plan, 2023.

Box 4:

The mid-term review of cohesion-policy funding for Latvia

The mid-term review of the cohesion policy funds is an opportunity to assess cohesion-policy programmes and tackle emerging needs and challenges in EU Member States and their regions. Member States are reviewing each programme, taking into account, as among other things, the challenges identified in the European Semester, including in the 2024 country-specific recommendations. This review forms the basis for a proposal by the Member State for the definitive allocation of 15% of the EU funding included in each programme.

Latvia has made progress in the implementation of cohesion-policy programmes and the European Pillar of Social Rights, but the challenges outlined in this report (including Annexes 14 and 17) remain. In particular, there are large disparities in GDP per capita and productivity between the capital city of Riga and the rest of the country, in particular Latgale in the east. Against this background, it remains important to continue the implementation of planned priorities, with particular attention to: (i) the capacity of enterprises to innovate and digitise so they can increase productivity; (ii) energy efficiency in buildings and businesses; (iii) timely and equal access to good-quality health services and infrastructure (including in rural and remote regions), social services, social housing assistance with the transition to independent living, and community-based care; (vi) activation, the reskilling and upskilling of the unemployed, and increasing participation in the labour market for under-represented groups; (v) improving the quality and inclusiveness of education and strengthening the upskilling and reskilling of the adult population to address labour and skills shortages and (vi) accelerating investments in sustainable transport and electrification of the railway network, especially by increasing the share of low and zero emission vehicles, including provision of electric trains.

The existing regional disparities and the needs in the field of material deprivation (including of food and material assistance) merit specific consideration in the preparation for the mid-term review. Latvia could also benefit from the opportunities provided by the Strategic Technologies for Europe Platform (STEP) initiative ([18]) to support the transformation of industry, in particular in the areas of: (i) smart and renewable energy (e.g. offshore wind energy parks) where there is interest from international investors in contributing to such projects; and (ii) knowledge-intensive bioeconomy and biotechnology.

([18]) Regulation (EU) 2024/795

KEY FINDINGS

With its wide policy scope and substantial financial envelope, Latvia's recovery and resilience plan (RRP) includes measures to address a series of structural challenges, in synergy with other EU funds, including cohesion-policy funds, by:

- **accelerating the green transition** through reforms and investments in: (i) sustainable mobility and transport; (ii) energy efficiency; (iii) renewable energy; (iv) electricity transmission/distribution networks; (v) climate-change adaption; and (vi) disaster management;
- **digitalising the public sector and businesses**, improving basic and advanced digital skills and connectivity, and improving broadband infrastructure;
- **reforming the governance and funding of research and innovation**, and boosting the quality of higher education;
- **reducing social and regional inequality** including by raising the minimum income support, increasing the provision of affordable housing; improving accessibility to public buildings, social-care facilities and individual homes; improving the school network; and developing industrial parks;
- **improving the resilience, accessibility and quality of healthcare**, including through digitalisation and investments in university and regional hospitals and outpatient clinics;
- **improving tax compliance**, strengthening law enforcement dealing with economic crime, improving both the efficiency of public administration and the quality of public procurement.

Continued efforts are key for a successful implementation of all the measures of Latvia's recovery and resilience plan by August 2026.

Beyond the reforms and investments in the RRP and cohesion-policy programmes, Latvia could benefit from:

- **broadening the taxation** of property and capital and further improving tax compliance, in part to make it possible to adequately finance healthcare and social-protection services;
- **improving the business environment** for increased competitiveness by reducing the shadow economy, simplifying regulations, and improving access to finance;
- **boosting efforts to address labour and skills shortages** through well-targeted upskilling and reskilling measures, including for people with a low level of skills, to meet employers' needs, and promote the skills needed for the green transition;
- **reducing poverty and income inequality** by strengthening social assistance, pensions and services to vulnerable groups, including access to social housing, and individual needs-based social services;
- **further improving energy and resource efficiency** by accelerating the deployment of wind and solar energy projects; further enabling private investments in energy efficiency for buildings and industries; and fostering the transition to a circular economy through eco-innovation and sustainable resource-management practices.

ANNEXES

LIST OF ANNEXES

Cross-cutting indicators 23

A1. Sustainable Development Goals 23

A2. Progress in the implementation of country-specific recommendations 25

A3. Recovery and resilience plan – implementation 29

A4. Other EU instruments for recovery and growth 31

A5. Resilience 34

Environmental sustainability 36

A6. European Green Deal 36

A7. Energy transition and competitiveness 41

A8. Fair transition to climate neutrality 46

Productivity 49

A9. Resource productivity, efficiency and circularity 49

A10. Digital transformation 51

A11. Innovation 53

A12. Industry and single market 55

A13. Public administration 59

Fairness 61

A14. Employment, skills and social policy challenges in light of the European Pillar of Social Rights 61

A15. Education and training 64

A16. Health and health systems 67

A17. Economic and social performance at regional level 69

Macroeconomic stability 72

A18. Key financial sector developments 72

A19. Taxation 74

A20. Table with economic and financial indicators 76

A21. Debt sustainability analysis 77

LIST OF TABLES

A2.1. Summary table on 2019-2023 CSRs 26

A3.1. Key facts of the Latvian RRP 29

A3.2. Measures in Latvia's RRP 30
A4.1. Support from EU instruments in Latvia 33
A5.1. Resilience indices across dimensions for Latvia and the EU-27 34
A6.1. Indicators tracking progress on the European Green Deal from a macroeconomic perspective 40
A7.1. Key Energy Indicators 45
A8.1. Key indicators for a fair transition in Latvia 48
A9.1. Circularity indicators 50
A10.1. Key Digital Decade targets monitored by the Digital Economy and Society Index indicators 52
A11.1. Key innovation indicators 54
A12.1. Industry and the Single Market 58
A13.1. Public administration indicators 60
A14.1. Social Scoreboard for Latvia 61
A14.2. Situation of Latvia on 2030 employment, skills and poverty reduction targets 62
A15.1. EU-level targets and other contextual indicators under the European Education Area strategic framework 65
A16.1. Key health indicators 68
A17.1. Selected indicators at regional level in Latvia 70
A18.1. Financial Soundness Indicators 73
A19.1. Taxation indicators 74
A20.1. Key economic and financial indicators 76
A21.1. Debt sustainability analysis - Latvia 79
A21.2. Heat map of fiscal sustainability risks - Latvia 79

LIST OF GRAPHS

A1.1. Progress towards the SDGs in Latvia 23
A2.1. Latvia's progress on the 2019-2023 CSRs (2024 European Semester) 25
A3.1. Total grants disbursed under the RRF 30
A4.1. Distribution of cohesion policy funding across policy objectives in Latvia 32
A4.2. Distribution of RRF funding by pillar in Latvia 32
A6.1. Greenhouse gas emissions from the effort sharing sectors in Mt CO2eq, 2005-2022 36
A6.2. Changes in livestock density and organic farming 38
A6.3. Environmental investment gap, annual average 39
A7.1. Latvia´s energy retail prices for households and industry & service 41
A7.2. Trends in electricity prices for non-household consumers (EU and foreign partners) 42
A7.3. Latvia's installed renewable capacity (left) and electricity generation mix (right) 43
A8.1. Fair transition challenges in Latvia 46
A8.2. Job vacancy rate in transforming sectors and mining and quarrying 47
A9.1. ETS emissions by sector since 2013 49
A9.2. Treatment of municipal waste 50
A11.1. R&D intensity as % of GDP 2015-2022 53
A12.1. Labour productivity (per hour worked, in purchasing power standards, % of EU) 55
A12.2. Average net private investment as a % of GDP, 2019-23 56
A13.1. Government effectiveness 59
A15.1. Underachievement rates by field, PISA 2012, 2018 and 2022 64
A16.1. Life expectancy at birth, years 67
A16.2. Projected increase in public expenditure on healthcare over 2024-2070 67
A19.1. Tax wedge for single and second earners as a % of total labour costs, 2023 74
A19.2. Tax revenues from different tax types, % of total revenue 75

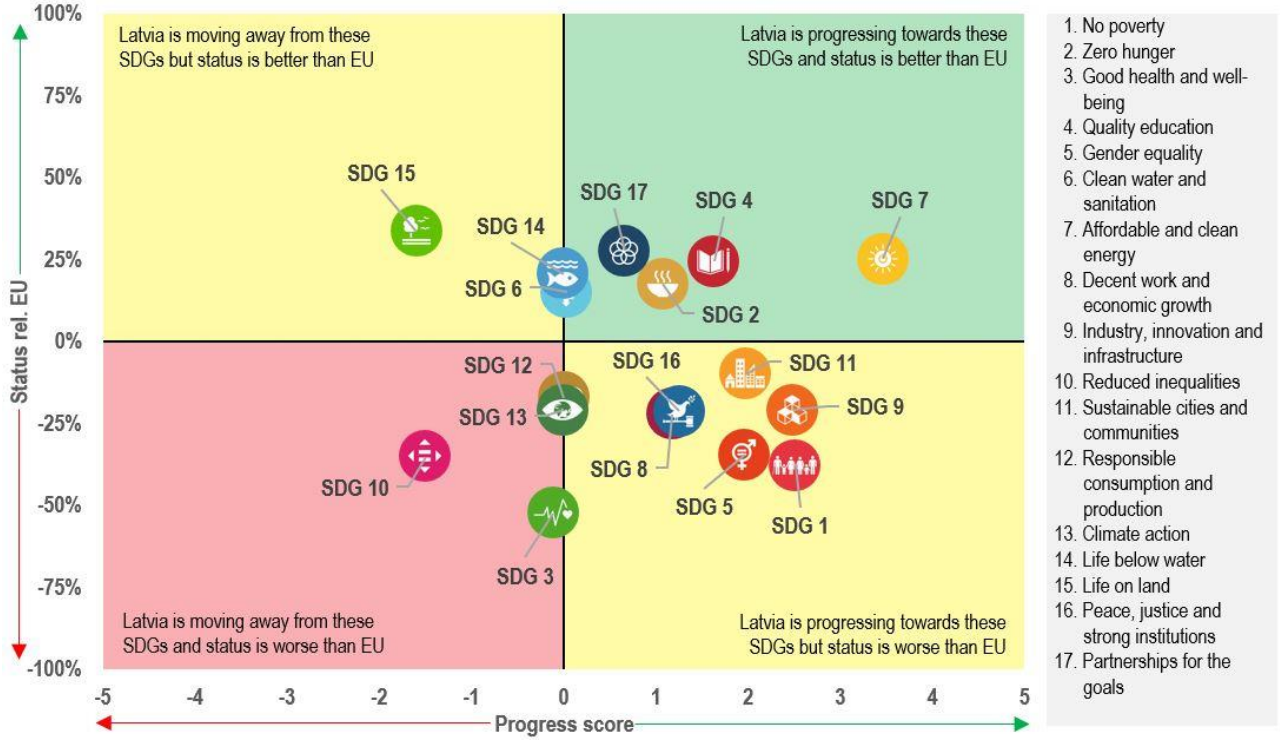
LIST OF MAPS

A17.1. GDP per capita (in PPS) in Latvia, NUTS 3, 2021 69

This Annex assesses Latvia's progress on the Sustainable Development Goals (SDGs) along the four dimensions of competitive sustainability. The 17 SDGs and their related indicators provide a policy framework under the UN's 2030 Agenda for Sustainable Development. The aim is to end all forms of poverty, fight inequalities and tackle climate change and the environmental crisis, while ensuring that no one is left behind. The EU and its Member States are committed to this historic global framework agreement and to playing an active role in maximising progress on the SDGs. The graph below is based on the EU SDG indicator set developed to monitor progress on the SDGs in an EU context.

While Latvia performs well (SDGs 2, 6, 7, 14) or is improving (SDGs 9, 11, 12) on several SDG indicators related to *environmental sustainability*, it is moving away from its targets for SDGs 13 and 15. Addressing SDG 7 (Affordable and clean energy) in particular, the share of renewable energy in total energy consumption increased from 39% in 2017 to 43.3% in 2022, and was well above the EU average (23% in 2022). On SDG 12 (Responsible consumption and production), the circular material use rate was 5.4% in 2022, significantly below the EU average of 11.5%. Latvia's recovery and resilience plan (RRP) includes measures to address some of the energy-related challenges, in both the REPowerEU chapter and Component 1 (Climate change and environmental sustainability). While Latvia is improving on SDG 11 (Sustainable cities and communities), it needs to catch up with the EU average, in particular on the recycling rate of municipal waste (44.1% in 2021; EU average: 48.7%) and on reducing road traffic deaths (6 per 100 000 persons in 2022; EU average: 4.6). While performing better than the EU average on SDG 15 (Life on land), Latvia is moving away from its targets for the SDG. The share of forest area slightly decreased from 56.4% in 2015 to 56.2% in 2018 but remained well above the EU average of 43.5%. The biochemical oxygen demand in

Graph A1.1: **Progress towards the SDGs in Latvia**



For detailed datasets on the various SDGs, see the annual Eurostat report 'Sustainable development in the European Union'; for details on extensive country-specific data on the short-term progress of Member States: Key findings – Sustainable development indicators - Eurostat (europa.eu). A high status does not mean that a country is close to reaching a specific SDG, but signals that it is doing better than the EU on average. The progress score is an absolute measure based on the indicator trends over the past 5 years. The calculation does not take into account any target values as most EU policy targets are only valid for the aggregate EU level. Depending on data availability for each goal, not all 17 SDGs are shown for each country.
Source: Eurostat, latest update of 25 April 2024. Data refer mainly to the period 2017-2022 or 2018-2023. Data on SDGs may vary across the report and its annexes due to different cut-off dates.

rivers increased from 1.27 mg O_2 per litre in 2016 to 2.19 in 2021. Latvia is moving away from SDG 13 (Climate action) and is performing worse than the EU average. In particular, net greenhouse gas emissions from land use and forestry (LULUCF sector) increased from -44.8 tonnes CO_2 eq. per km^2 in 2017 to 76.6 in 2022, well above the EU average of -56 in 2022. While there is no progress on SDG 14, the indicators are performing better than the EU average. For instance, the percentage of marine protected areas was 15.8% in 2021 (EU average: 12.1%).

While Latvia is improving on several SDG indicators related to *fairness* (SDGs 1, 4, 5, 8), it still needs to catch up with the EU average and is moving away from the targets for SDG 10 (Reduced inequalities). Latvia is still underperforming compared to the EU average on some indicators related to poverty (SDG 1). This concerns in particular the severe housing deprivation rate (11.5% in 2020; EU average: 4.3%) and people at risk of monetary poverty after social transfers (22.5% in 2022; EU average: 16.5%). However, there have been some positive developments in recent years. Latvia reduced the risk of poverty or social exclusion from 28.5% in 2017 to 26% in 2022, but it remains above the EU average of 21.6%. Unmet health needs have reduced over the years, even if they are still high (5.4% in 2022) and above the EU average (2.2% in 2022). Latvia is also underperforming for indicators related to zero hunger (SDG 2). Unhealthy life choices lead to higher obesity, which increased from 21.5% in 2017 to 23.3% of adults in 2022, above the EU average of 14.8%. Latvia is also underperforming compared to the EU average on SDG 10 (Reduced inequalities): the urban-rural gap for the risk of poverty or social exclusion accounted for 14.5% in 2022, (EU average: 0.4%) while purchasing power adjusted GDP per capita was 71% in 2023 (the EU index = 100). At the same time, Latvia has improved on several fairness-related indicators such as the long-term unemployment rate (SDG 8; 1.8% in 2023, vs 3.4% in 2018 and the EU average of 2.1% in 2023) and early leavers from education and training (SDG 4; 7.7% in 2023, vs 8.3% in 2018 and the EU average of 9.5% in 2023). The RRP includes measures to reduce regional disparities, improve the social safety net and encourage social integration and inclusion in Latvia. It also aims to contribute to the accessibility, efficiency and resilience of Latvia's health system.

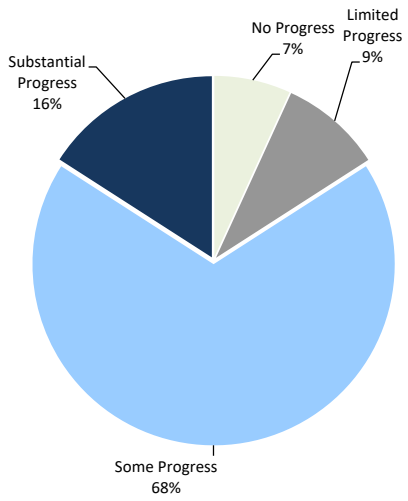
Latvia is improving on all SDG indicators related to *productivity* (SDGs 4, 8, 9) but needs to catch up with the EU average on SDGs 8 and 9. The share of households with a high-speed internet connection (SDG 9) was 91.5% in 2022, significantly above the EU average (73.4%). Latvia has low, albeit slowly increasing, gross domestic expenditure on R&D (SDG 9). In 2022, this stood at 0.75% of GDP in 2022 (EU average: 2.24%). Sustainable economic growth indicators (SDG 8) are below the EU average. The material footprint increased over the 5 years from 2017 to 2022, reaching 20 tonnes per capita in 2022 (EU average: 14.8 tonnes per capita). While Latvia is performing better than the EU average on general employment indicators, the level of fatal accidents at work stood at 4.29 accidents per 100 000 workers in 2021 (EU average: 1.76). Strengthening digital skills (SDG 4) remains a challenge, as only less than half of people have at least basic digital skills (45.3% in 2023; EU average: 55.6%). Reforms and investment under the RRP focus on further developing digital infrastructure and equipment and on improving digital skills at all levels.

Latvia is improving on the SDG indicators related to *macroeconomic stability* (SDGs 8, 16, 17). Latvia has improved on SDG 8 (Decent work and economic growth) but needs to catch up with the EU average. In recent years, Latvia's real GDP per capita increased, going from EUR 12 140 in 2018 to EUR 13 220 in 2023 (EU average: EUR 28 940 in 2023). The investment share of GDP is slightly below the EU average (21.8% of GDP, vs 22.9% for the EU in 2022). Latvia's performance on the quality of its institutions, including trust in institutions, is below the EU average but improving (SDG 16 on Peace, justice and strong institutions). The RRP includes several measures to increase the transparency and integrity of public administration through training on general skills like ethics, integrity and anti-corruption.

As the SDGs form an overarching framework, any links to relevant SDGs are either explained or depicted with icons in the other annexes.

The Commission has assessed the 2019-2023 country-specific recommendations (CSRs) ([19]) addressed to Latvia as part of the European Semester. These recommendations concern a wide range of policy areas that are related to 14 of the 17 Sustainable Development Goals (see Annexes 1 and 3). The assessment considers the policy action taken by Latvia to date ([20]) and the commitments in its recovery and resilience plan (RRP) ([21]). At this stage of RRP implementation, 84% of the CSRs focusing on structural issues from 2019-2023 have recorded at least 'some progress', while 9% recorded 'limited progress' (see Graph A2.1). As the RRP is implemented further, considerable progress in addressing structural CSRs is expected in the years to come.

Graph A2.1: **Latvia's progress on the 2019-2023 CSRs (2024 European Semester)**



Source: European Commission.

([19]) 2023 CSRs: EUR-Lex - 32023H0901(14) - EN - EUR-Lex (europa.eu)
2022 CSRs: EUR-Lex - 32022H0901(14) - EN - EUR-Lex (europa.eu)
2021 CSRs: EUR-Lex - 32021H0729(14) - EN - EUR-Lex (europa.eu)
2020 CSRs: EUR-Lex - 32020H0826(14) - EN - EUR-Lex (europa.eu)
2019 CSRs: EUR-Lex - 32019H0905(14) - EN - EUR-Lex (europa.eu)

([20]) Including policy action reported in the national reform programme and in Recovery and Resilience Facility (RRF) reporting (twice a year reporting on progress in implementing milestones and targets and resulting from the payment requests assessment).

([21]) Member States were asked to effectively address in their RRPs all or a significant subset of the relevant country-specific recommendations issued by the Council. The CSR assessment presented here considers the degree of implementation of the measures included in the RRP and of those carried out outside of the RRP at the time of assessment. Measures laid down in the Annex of the adopted Council Implementing Decision on approving the assessment of the RRP, which are not yet adopted or implemented but considered credibly announced, in line with the CSR assessment methodology, warrant 'limited progress'. Once implemented, these measures can lead to 'some/substantial progress or full implementation', depending on their relevance.

Table A2.1: **Summary table on 2019-2023 CSRs**

Latvia	Assessment in May 2024	RRP coverage of CSRs until 2026**	Relevant SDGs
2019 CSR 1	**Some Progress**		
Ensure that the nominal growth rate of net primary government expenditure does not exceed 3,5 % in 2020, corresponding to an annual structural adjustment of 0,5 % of GDP.	Not relevant anymore	Not applicable	SDG 8, 16
Reduce taxation for low-income earners by shifting it to other sources, particularly capital and property, and by improving tax compliance.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023, 2025 and 2026.	SDG 8, 10, 12, 16
Ensure effective supervision and the enforcement of the anti-money laundering framework.	Substantial Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2024 and 2025.	SDG 8, 16
2019 CSR 2	**Some Progress**		
Address social exclusion notably by improving the adequacy of minimum income benefits, minimum old-age pensions and income support for people with disabilities.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022.	SDG 1, 2, 8, 10
Increase the quality and efficiency of education and training in particular of low-skilled workers and jobseekers, including by strengthening the participation in vocational education and training and adult learning.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024 and 2026.	SDG 4
Increase the accessibility, quality and cost-effectiveness of the healthcare system.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 3
2019 CSR 3	**Some Progress**		
Focus investment-related economic policy on innovation,	Limited Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 9, 10, 11
the provision of affordable housing,	Some Progress	Relevant RRP measures implemented as of 2021.	SDG 1, 2, 8, 10, 11
transport, in particular on its sustainability,	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2026.	SDG 10, 11
resource efficiency and energy efficiency, energy interconnections	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 6, 7, 9, 10, 11, 12, 13
and digital infrastructure, taking into account regional disparities.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024, 2025 and 2026.	SDG 9, 10, 11
2019 CSR 4	**Some Progress**		
Strengthen the accountability and efficiency of the public sector, in particular with regard to local authorities and State-owned and municipal enterprises and the conflict of interest regime.	Some progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024, 2025 and 2026.	SDG 9, 16
2020 CSR 1	**Some Progress**		
Take all necessary measures, in line with the general escape clause of the Stability and Growth Pact, to effectively address the COVID-19 pandemic, sustain the economy and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment.	Not relevant anymore	Not applicable	SDG 8, 16
Strengthen the resilience and accessibility of the health system including by providing additional human and financial resources.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 3
2020 CSR 2	**Some Progress**		
Provide adequate income support to the groups most affected by the crisis	Substantial Progress	Relevant RRP measures implemented as of 2021.	SDG 1, 2, 10
and strengthen the social safety net.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022.	SDG 1, 2, 10
Mitigate the employment impact of the crisis, including through flexible working arrangements,	Substantial Progress		SDG 8
active labour market measures and skills.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024 and 2026.	SDG 4, 8

(Continued on the next page)

Table (continued)

2020 CSR 3	**Some Progress**		
Ensure access to liquidity support by firms and in particular small and medium-sized enterprises	Substantial Progress		SDG 8, 9
Front-load mature public investment projects	Some Progress	Relevant RRP measures implemented as of 2022.	SDG 8, 16
and promote private investment to foster the economic recovery.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 8, 9
Focus investment on the green and digital transition, in particular on research and innovation,	Limited Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023, 2024 and 2026.	SDG 9
clean and efficient production and use of energy,	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 7, 9, 13
sustainable transport	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2026.	SDG 11
and digital infrastructures.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024, 2025 and 2026.	SDG 9
2020 CSR 4	**Substantial progress**		
Continue progress on the anti-money-laundering framework.	Substantial progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023, 2024 and 2025.	SDG 8, 16
2021 CSR 1	**Not relevant anymore**		
In 2022, maintain a supportive fiscal stance, including the impulse provided by the Recovery and Resilience Facility, and preserve nationally financed investment. Keep the growth of nationally financed current expenditure under control.	Not relevant anymore	Not applicable	SDG 8, 16
When economic conditions allow, pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions and ensuring fiscal sustainability in the medium term.	Not relevant anymore	Not applicable	SDG 8, 16
At the same time, enhance investment to boost growth potential. Pay particular attention to the composition of public finances, on both the revenue and expenditure sides of the budget, and to the quality of budgetary measures, in order to ensure a sustainable and inclusive recovery. Prioritise sustainable and growth-enhancing investment, in particular investment supporting the green and digital transition.	Not relevant anymore	Not applicable	SDG 8, 16
Give priority to fiscal structural reforms that will help provide financing for public policy priorities and contribute to the long-term sustainability of public finances, including, where relevant, by strengthening the coverage, adequacy, and sustainability of health and social protection systems for all.	Not relevant anymore	Not applicable	SDG 8, 16
2022 CSR 1	**Some Progress**		
In 2023, ensure that the growth of nationally financed primary current expenditure is in line with an overall neutral policy stance, taking into account continued temporary and targeted support to households and firms most vulnerable to energy price hikes and to people fleeing Ukraine. Stand ready to adjust current spending to the evolving situation.	No Progress		SDG 8, 16
Expand public investment for the green and digital transitions, and for energy security taking into account the REPowerEU initiative, including by making use of the Recovery and Resilience Facility and other Union funds.	Some Progress		SDG 8, 16
Pursue a fiscal policy aimed at achieving prudent medium-term fiscal positions.	Full Implementation		SDG 8, 16
Broaden taxation, including of property and capital,	No Progress		SDG 8, 10, 12
and strengthen the adequacy of healthcare	Limited Progress		SDG 3
and social protection to reduce inequality.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023.	SDG 1, 2, 10
2022 CSR 2			
Proceed with the implementation of its recovery and resilience plan, in line with the milestones and targets included in the Council Implementing Decision of 13 July 2021.	RRP implementation is monitored by assessing RRP payment requests and analysing reports published twice a year on the achievement of the milestones and targets. These are to be reflected in the country reports.		
Submit the 2021–2027 cohesion policy programming documents with a view to finalising their negotiations with the Commission and subsequently starting their implementation.	Progress on the cohesion policy programming documents is monitored under the EU cohesion policy.		
2022 CSR 3	**Some progress**		
Improve access to finance for small and medium-sized enterprises through public lending and guarantee schemes aimed at facilitating investments of strategic importance, in particular the green transition and regional development.	Some Progress		SDG 8, 9

(Continued on the next page)

Table (continued)

2022 CSR 4	**Some Progress**		
Reduce overall reliance on fossil fuels and diversify imports of fossil fuels	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023, 2024, 2026.	SDG 7, 9, 13
by accelerating the deployment of renewables,	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 7, 9, 13
ensuring sufficient interconnection capacity, diversifying energy supplies and routes	Substantial Progress	Relevant RRP measures being planned as of 2023 and 2024.	SDG 7, 9, 13
and reducing overall energy consumption through ambitious energy efficiency measures.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2026.	SDG 7
2023 CSR 1	**Some Progress**		
Wind down the emergency energy support measures in force, using the related savings to reduce the government deficit, as soon as possible in 2023 and 2024. Should renewed energy price increases necessitate new or continued support measures, ensure that such support measures are targeted at protecting vulnerable households and firms are fiscally affordable and preserve incentives for energy savings.	Substantial Progress	Not applicable	SDG 8, 16
Ensure prudent fiscal policy, in particular by limiting the nominal increase in nationally financed net primary expenditure in 2024 to not more than 3,0 %.	Some Progress	Not applicable	SDG 8, 16
Preserve nationally financed public investment and ensure the effective absorption of grants under the Facility and of other Union funds, in particular to foster the green and digital transitions.	Full Implementation	Not applicable	SDG 8, 16
For the period beyond 2024, continue to pursue a medium-term fiscal strategy of gradual and sustainable consolidation, combined with investments and reforms conducive to higher sustainable growth, in order to achieve a prudent medium-term fiscal position.	Full Implementation	Not applicable	SDG 8, 16
Broaden taxation, including of property and capital, and	No Progress		SDG 8, 10, 12
strengthen the adequacy of healthcare and	Limited Progress		SDG 3
social protection.	Some Progress	Relevant RRP measures implemented as of 2021 and 2022. Relevant RRP measures being planned as of 2023.	SDG 1, 2, 10
2023 CSR 2			
Continue the steady implementation of its recovery and resilience plan and swiftly finalise the REPowerEU chapter with a view to rapidly starting the implementation thereof. Proceed with the speedy implementation of cohesion policy programmes, in close complementarity and synergy with the recovery and resilience plan.	RRP implementation is monitored through the assessment of RRP payment requests and analysis of the bi-annual reporting on the achievement of the milestones and targets, to be reflected in the country reports. Progress with the cohesion policy is monitored in the context of the Cohesion Policy of the European Union.		
2023 CSR 3	**Some progress**		
Improve access to finance for small and medium-sized enterprises through public lending and guarantee schemes aimed at facilitating investments of strategic importance, in particular in the areas of the green transition and regional development.	Some progress		SDG 8, 9
2023 CSR 4	**Some Progress**		
Reduce overall reliance on fossil fuels	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023, 2024, 2026.	SDG 7, 9, 13
by accelerating the deployment of renewable energy, in particular onshore and offshore wind energy and solar energy,	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023 and 2024.	SDG 7, 9, 13
and strengthening energy efficiency measures, for example through new financing and support measures to meet the targets of the long-term renovation strategy.	Some Progress	Relevant RRP measures implemented as of 2022. Relevant RRP measures being planned as of 2023.	SDG 7
Ensure sufficient capacity of interconnections to increase security of supply and continue synchronisation with the Union electricity grid.	Substantial Progress	Relevant RRP measures being planned as of 2023 and 2024.	SDG 7, 9, 13
Step up policy efforts aimed at the provision and acquisition of skills and competences needed for the green transition.	Some Progress		SDG 4

Note:

* See footnote ([39]).

** RRP measures included in this table contribute to the implementation of CSRs. Nevertheless, additional measures outside the RRP are necessary to fully implement CSRs and address their underlying challenges. Measures indicated as 'being implemented' are only those included in the RRF payment requests submitted and positively assessed by the European Commission.

Source: European Commission

This Annex provides a snapshot of Latvia's implementation of its recovery and resilience plan (RRP), past the mid-way point of the Recovery and Resilience Facility's (RRF) lifetime. The RRF has proven central to the EU's recovery from the COVID-19 pandemic, helping speed up the twin green and digital transition, while adapting to geopolitical and economic developments and strengthening resilience against future shocks. The RRF is also helping implement the UN Sustainable Development Goals and address the country-specific recommendations (see Annex 2).

The RRP paves the way for disbursing up to EUR 1,970 million in grants under the RRF over the 2021-2026 period, representing 4.9% of Latvia's GDP ([22]). As of mid-May 2024, EUR 465 million have been disbursed to Latvia under the RRF.

Latvia still has EUR 1,504 million available in grants from the RRF. This will be disbursed after the assessment of the future fulfilment of the remaining 220 milestones and targets ([23]) included in the Council Implementing Decision ([24]) (CID), ahead of the 2026 deadline established for the RRF.

Latvia's progress in implementing its plan is recorded in the Recovery and Resilience Scoreboard ([25]). The scoreboard gives an overview of the progress made in implementing the RRF as a whole. Graph A3.1 shows the current state of play as reflected in the scoreboard.

Latvia's RRP includes a REPowerEU chapter to phase out its dependency on Russian fossil fuels, diversify its energy supplies and produce more clean energy in the coming years. To kick-start the REPowerEU chapter's implementation, EUR 26.9 million was disbursed as pre-financing on 25 January 2024. This helped launch relevant reforms like the introduction of a regulatory framework for energy communities, currently underway.

The plan has a strong focus on the green transition, devoting 41.5% of the available funds to measures that support climate objectives and 23% of its total allocation to support the digital transition. It also retains a strong social dimension with social protection measures, especially related to healthcare, education and skills.

Table A3.1: **Key facts of the Latvian RRP**

Initial plan CID adoption date	13 July 2021
Scope	Revised plan with REPowerEU chapter
Last major revision	8 December 2023
Total allocation	EUR 1969 million in grants (4.9% of 2023 GDP)
Investments and reforms	63 investments and 25 reforms
Total number of milestones and targets	229
Fulfilled milestones and targets	52 (23% of total)

Source: RRF Scoreboard, C(2024) 3393 final

With one complete payment request completed, Latvia's implementation of its RRP is well underway. The Commission gave a positive assessment of Latvia's payment request on 29 July 2022, taking into account the opinion of the Economic and Financial Committee. This led to EUR 201 million being disbursed in financial support on 7 October 2022 ([26]). The related 9 milestones covered reforms and investments in the areas of the minimum income support system, broadband infrastructure, educational institutions' infrastructure and remote learning, and others in the areas of public procurement, the prevention of money laundering and terrorist financing, as well as the construction of low-rent dwellings.

([22]) GDP information is based on 2023 data. Source: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html?lang=en.

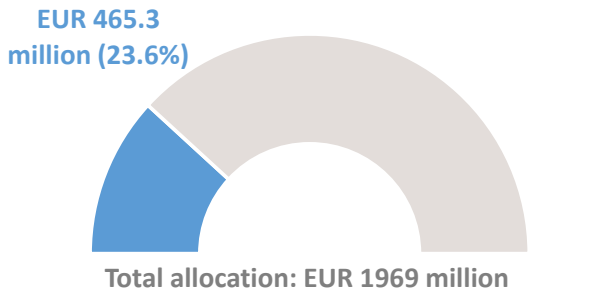
([23]) A milestone or target is satisfactorily fulfilled once a Member State has provided evidence to the Commission that it has reached the milestone or target and the Commission has assessed it positively in an implementing decision.

([24]) https://data.consilium.europa.eu/doc/document/ST-10157-2021-ADD-1/en/pdf

([25]) https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/country_overview.html

([26]) When requested payments are disbursed, the pre-financing is cleared proportionally. The net amounts are quoted here.

Graph A3.1: **Total grants disbursed under the RRF**



Note: This graph displays the amount of grants, including pre-financing, disbursed so far under the RRF. Grants are non-repayable financial contributions. The total amount of grants given to each Member State is determined by an allocation key and the total estimated cost of the respective RRP.
Source: RRF Scoreboard

As of 15 May 2024, the Commission has adopted a preliminary assessment of Latvia's second payment request. The corresponding disbursement will take place soon. The 40 milestones and 3 targets of the second payment request cover reforms and investment in the areas of higher education, digitalisation, healthcare, affordable housing, energy efficiency, clean mobility, customs and tax compliance. This payment request of EUR 336 million in financial support will bring the funds paid out to Latvia under the Recovery and Resilience Facility to EUR 801 million, which correspond to 41% of all the funds in the Latvia's plan. Table A3.2 highlights some relevant measures achieved so far, and some that will be implemented before 2026 to keep making Latvia's economy greener, more digital, inclusive, and resilient.

Table A3.2: **Measures in Latvia's RRP**

Reforms and investments implemented
• Support Programme for Residential Energy Efficiency • Establishment of digital maturity test system for entities to identify level of digitalisation • Modernisation of public administration
Upcoming reforms and investments
• Greening the Riga Metropolitan Transport System • Construction of low-rent dwellings • Increase of the uptake of sustainable biomethane

Source: FENIX

EU funding instruments provide considerable resources for recovery and growth to the EU Member States. In addition to the EUR 1.97 billion of Recovery and Resilience Facility (RRF) funding described in Annex 3, EU cohesion policy funds ([27]) provide EUR 4.4 billion to Latvia for the 2021-2027 period ([28]). Support from these two instruments combined represents around 15.87% of the country's 2023 GDP, compared to the EU average of 5.38% of GDP ([29]). Cohesion policy supports regional development, economic, social and territorial convergence and competitiveness through long-term investment in line with EU priorities and with national and regional strategies.

During the 2014-2020 programming period, cohesion policy funds boosted Latvia's competitiveness, with tangible achievements notably in support provided to businesses, in energy efficiency, transport and skills. Over the whole period, which financed investments until December 2023, cohesion policy funds ([30]) had made EUR 4.6 billion available to Latvia ([31]), of which EUR 2.7 billion has been disbursed since March 2020, when the COVID-19 pandemic began ([32]). The achievements of cohesion policy funds over the programming period included support to create 5 066 new direct jobs, provide direct financial support to 7 292 businesses and 1 596 start-ups, to give an additional 69 300 households access to broadband, to improve energy performance in 22 710 households and to rebuild 698 kilometres of roads. During the same period, over 74 949 adults received support under upskilling/reskilling measures funded by the European Social Fund (ESF), with almost one in five recipients being low-qualified and almost 40% from rural areas.

In the current programming period, cohesion policy will provide a further boost to Latvia's competitiveness, to the green transition and to social cohesion, improving the living and working conditions of Latvia's people. In 2021-2027, the European Regional Development Fund (ERDF) and Cohesion Fund (CF) aim to provide financial support to 3 742 businesses and non-financial support to 2 339 businesses. 1 750 businesses are expected to achieve a high level of digital intensity. The ERDF and CF aim to improve the energy performance of 13 450 dwellings, helping people overcome the challenges of the green transition. They also aim to increase the share of renewable energy in final energy consumption to 46.5% in 2029 (from 39% in 2017). EUR 192 million under the Just Transition Fund will be invested in the country to support a fair transition to a climate-neutral economy. These investments will support the phasing-out of peat for energy generation by 2030 and peatland restoration, reducing greenhouse gas emissions and improving the local environment. 3 950 persons, including 1 600 workers in the peat and other affected sectors will receive support in the form of specific training.

The European Social Fund Plus (ESF+) will invest over EUR 260 million in social inclusion measures to support over 42 000 disadvantaged and unemployed people, to provide community-based care social services to over 1 000 people with disabilities and to provide access to early childhood education to over 1 200 disadvantaged children. Funding under the ESF+ will also continue to provide basic food and material assistance to the growing number of people in need, over 100 000 people a year, including Ukrainians fleeing Russia's military aggression in Ukraine. With this work, cohesion policy substantially contributes to achieving the UN Sustainable Development Goals (SDGs) in Latvia, in particular SDG 9 (Industry, innovation, infrastructure), SDG 7 (Affordable and clean energy) and SDG 8 (Decent work and economic growth).

([27]) In 2021-2027, cohesion policy funds include the Cohesion Fund, the European Regional Development Fund, the European Social Fund Plus and the Just Transition Fund.

([28]) European territorial cooperation (ETC) programmes are excluded from the figure. In 2021-2027, the total investment, including national financing, amounts to EUR 5.2 billion.

([29]) RRF funding includes both grants and loans, where applicable. The EU average is calculated for cohesion policy funds excluding ETC programmes. GDP figures are based on Eurostat data for 2022.

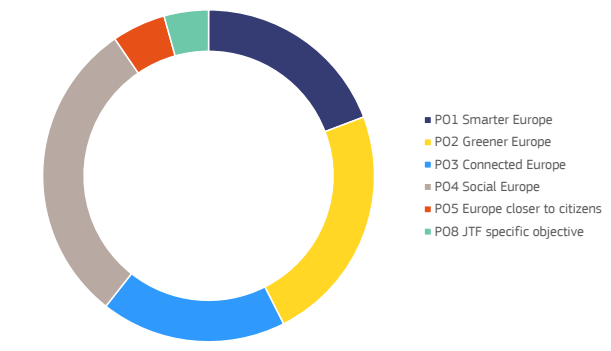
([30]) In 2014-2020, cohesion policy funds included the Cohesion Fund, the European Regional Development Fund, the European Social Fund and the Youth Employment Initiative. REACT-EU allocations are included but ETC programmes are excluded.

([31]) In 2014-2020, the total investment, including national financing, amounted to EUR 5.4 billion.

([32]) Cut-off date: 14 May 2024.

Through combined action, cohesion policy and the recovery and resilience plan (RRP) have a mutually reinforcing impact in Latvia. For instance, the RRP focuses on improving school infrastructure, including purchasing IT equipment and implementing online and remote learning. The ERDF focuses more on investing in school infrastructure and advanced general education content (e.g. learning tools and equipment, STEM equipment and educational technologies). The ESF+ provides investment in soft skills to train staff in regional schools. All three elements are complementary and aim to improve the quality of education in regional schools.

Graph A4.1: **Distribution of cohesion policy funding across policy objectives in Latvia**

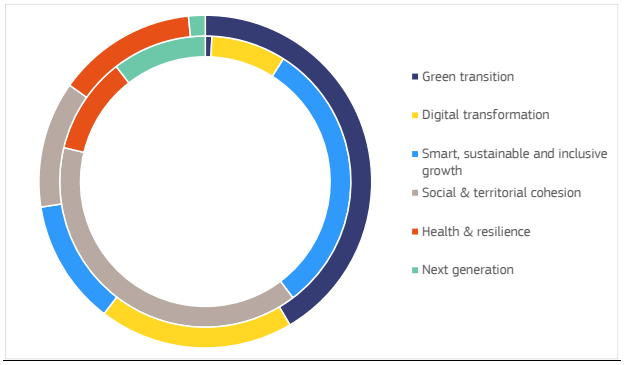


Source: European Commission

Funding under the RRP, ERDF and ESF+ is also complementary in the area of long-term care. The RRP will provide community-based housing for elderly people and the ESF+ will develop long-term care services, such as home care and day care centres for people with mental and functional disabilities, including for the elderly. In addition, funding under the ESF+ and ERDF will provide infrastructure for children with functional impairments and for people with mental disabilities. The contribution of cohesion policy and RRP funding by policy objective is illustrated by Graphs A4.1 and A4.2.

The Technical Support Instrument (TSI) helps Latvia invest in its public administration and create a better enabling environment for EU and national investment. The TSI has funded projects in Latvia to design and implement growth-enhancing reforms since 2017. The support provided to Latvia in 2023 included action to improve road safety for vulnerable road users, support to roll out the New Academic Careers Framework and to strengthen the medium-term expenditure framework and budget outcomes. The TSI also helps Latvia implement specific reforms and investments included in its RRP, such as modernising the digital systems of the public employment service and boosting the innovative capacity of Latvia's public sector.

Graph A4.2: **Distribution of RRF funding by pillar in Latvia**



(1) Each RRP measure helps achieve the aims of two of the six policy pillars of the RRF. The primary contribution is shown in the outer circle while the secondary contribution is shown in the inner circle. Each contribution represents 100% of the RRF funds. Therefore, the total contribution to all pillars displayed on this chart amounts to 200% of the RRF funds allocated to Latvia.

Source: European Commission

Latvia also receives funding from several other instruments, including those listed in Table A4.1.

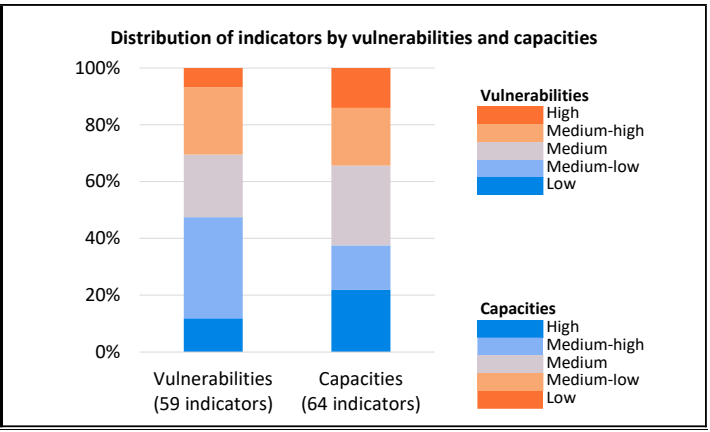
Table A4.1: **Support from EU instruments in Latvia**

EU grants			
	Amount 2014-2020 (EUR million)		Amount 2021-2027 (EUR million)
Cohesion policy	4 640.7		4 434.3
RRF grants (1)	-		1 969.2
Public sector loan facility (grant component) (2)	-		14.5
Common agricultural policy (3)	3 400.0		2 409.0
EMFF/EMFAF (4)	139.8		134.9
Connecting Europe Facility (5)	692.3		642.2
Horizon 2020 / Horizon Europe (6)	116.7		63.3
LIFE programme (7)	49.2		38.7
EU guarantees			
	EU Guarantee (EUR million)		Volume of operations (EUR million)
European Fund for Strategic Investment 2015-2020 (8)	81.6		202.8
InvestEU 2021-2027 (9)	1.0		1.0
EU loans			
	Period	Total amount available (EUR million)	Disbursed amount (EUR million)
SURE (10)	2020-2022	472.8	472.8

(1) RRF implementation period is 2021-2026.
(2) The public sector loan facility's programming period is 2021-2025 and the amount reflects the national share in its grant component reserved until the end of the period.
(3) Common agricultural policy programming periods are 2014-2022 and 2023-2027.
(4) EMFF – European Maritime and Fisheries Fund, EMFAF – European Maritime, Fisheries and Aquaculture Fund.
(5) Data on the Connecting Europe Facility covers transport and energy and has a cut-off date of 15 May 2024.
(6) Data on Horizon Europe (2021-2027) has a cut-off date of 13 May 2024.
(7) 2021-2027 data on the LIFE programme has a cut-off date of 15 May 2024.
(8) The amount of the EU guarantee signed under the EFSI Infrastructure and Innovation Window was derived based on the signed amount of the operations and the average internal multiplier, as reported by the EIB (cut-off date is 31 December 2023).
(9) The amount of the EU guarantee and of the volume of operations signed under InvestEU includes the EU compartment as well as the Member State compartments (cut-off date is 31 December 2023).
(10) SURE - European instrument for temporary support to mitigate unemployment risks in an emergency.
Source: European Commission

Table A5.1: **Resilience indices across dimensions for Latvia and the EU-27**

Dimension		LV 2023 RDB	LV 2024 RDB	EU-27 2024 RDB
Overall resilience	Vulnerabilities			
	Capacities			
Social and economic	Vulnerabilities			
	Capacities			
Green	Vulnerabilities			
	Capacities			
Digital	Vulnerabilities			
	Capacities			
Geopolitical	Vulnerabilities			
	Capacities			



(1) The synthetic indices aggregate the relative resilience situation of countries across all considered indicators. For an indicator, each country's relative situation in the latest available year is compared with the collection of values of that indicator for all Member States and all years in the reference period.
Source: Resilience Dashboards - version spring 2024, data up to 2022

This Annex uses the Commission's resilience dashboards (RDB) ([33]) to show Latvia's relative resilience capacities and vulnerabilities ([34]) that may be of relevance for societal, economic, digital and green transformations, and for dealing with future shocks and geopolitical challenges. ([35])

According to the RDB's set of resilience indicators, Latvia has medium overall vulnerabilities and capacities. The capacities are below the EU average and stable with respect to the 2023 RDB. This is also reflected in the distribution of indicators across different resilience categories: almost 50% of vulnerability indicators are medium-low or low, while under 40% of capacity indicators are medium-high or high.

With respect to the 2023 RDB, Latvia's vulnerabilities and capacities remained stable in the social and economic dimension. At risk of poverty or social exclusion rate (AROPE) and income inequality (income quintile share ratio s80/s20) remain high in Latvia. In the 2024 RDB, Latvia continues to have medium-low social and economic capacities, lagging behind the EU in two thirds of indicators. For example, its household savings rate has dropped sharply. Average active labour market policies per persons wanting to work, impact of social transfers (other than pension) on poverty reduction and healthy life years in absolute value at birth are also below EU average.

Latvia has medium-low vulnerabilities and medium capacities in the green dimension of the 2024 RDB. Although less vulnerable than the EU on average, it could improve in two areas with high vulnerabilities: farm income variability and harmonised risk indicator 1 for pesticides. On the capacity side, Latvia has the third highest proportion of renewable energy in final energy consumption in the EU. That said, the country could do more to be ready for the green transition in many indicators, particularly in sustainable transport and the environmental innovation sector.

In the 2024 RDB, Latvia has medium vulnerabilities and capacities in the digital dimension. The gap between large and small businesses' broadband access has gotten wider since last year, going from 17.7% to 24.5%. Latvia remains the poorest EU performer with the EU average at 5.6%. On the capacity side, the

([33]) Https://ec.europa.eu/info/strategy/strategic-planning/strategic-foresight/2020-strategic-foresight-report/resilience-dashboards_en. Resilience is defined as the ability not only to withstand and cope with challenges but also to undergo transitions, in a sustainable, fair, and democratic manner. 2020 Strategic Foresight Report: *Charting the course towards a more resilient Europe* (COM(2020) 493).

([34]) Vulnerabilities describe features that can exacerbate the negative impact of crises and transitions, or obstacles that may hinder the achievement of long-term strategic goals, capacities refer to enablers or abilities to cope with crises and structural changes and to manage transitions.

([35]) This Annex is linked to Annex 1 on SDGs, Annex 6 on the green deal, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource productivity, efficiency and circularity, Annex 10 on the digital transition and Annex 14 on the European pillar of social rights.

proportion of businesses seeking information and communication (ICT) specialists increased between 2020 and 2022.

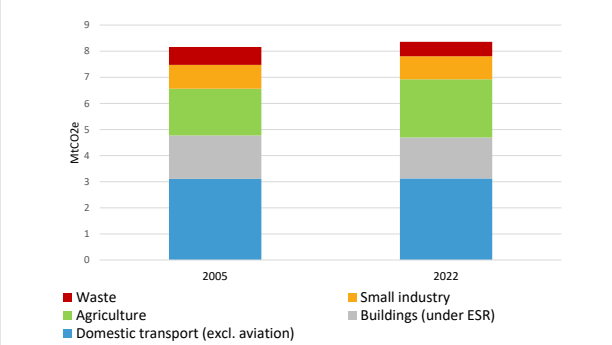
Finally, Latvia has medium vulnerabilities and medium-high capacities in the geopolitical dimension, both at the EU average. Its vulnerability is consistently high or medium-high in the indicators for the concentration of its suppliers in energy carriers, its extra-EU export and import partners, and its outward foreign direct investment partners. Most of its capacity indicators have remained stable, and there was even a clear improvement in intra-EU trade in energy, more than doubling from 6.5 in 2021 to 17.7% of GDP in 2022.

Latvia has made progress in the green transition, with more action needed, for example to specify its funding framework and the policies needed to attain its 2030 effort sharing target, and biodiversity and ecosystem protection. This Annex provides a snapshot of climate, energy, and environmental aspects of the transition in Latvia ([36]).

Latvia's draft updated national energy and climate plan (NECP) lacks key information on investment needs and funding sources to achieve its 2030 climate and energy targets. The plan lacks information on the investment needs for the planned policies and measures. Latvia provided only some information on past bond issuance (EUR 600 million in sustainable euro bonds in 2021, EUR 220 million in corporate green bonds, and the reference year is unclear). The plan briefly lists the main sources of financing available under climate action instruments, including funding from the EU and international institutions. It does not provide a consolidated overview, which means it is not possible to identify potential funding gaps. The plan recognises the importance of attracting private investments to cover the financial needs of the climate and energy transition ([37]).

The policies and measures planned by Latvia to reduce its effort sharing emissions are insufficient to reach its 2030 effort sharing target ([38]). Latvia's 2022 greenhouse gas emissions from its effort sharing sectors are expected to come in at 2.8% below 2005 levels. With current policies, Latvia is projected to see effort sharing emissions increase by 6.6% from to 2005 levels by 2030. Additional policies set out by Latvia are projected to reduce these emissions by 8.4% from 2005 levels ([39]). Latvia is hence projected to fall short of its effort sharing target, -17 % compared to 2005 levels, by 8.6 percentage points, which calls for implementing and planning more ambitious climate action. The draft updated NECP reiterates Latvia's commitment to achieve climate neutrality by 2050. Additionally, the draft updated NECP is not fully aligned with the peat phase-out timeline outlined in the Territorial Just Transition Plans (TJTP). The final updated NECP should ensure such alignment.

Graph A6.1: **Greenhouse gas emissions from the effort sharing sectors in Mt CO2eq, 2005-2022**



Source: European Environment Agency

There is scope for increasing Latvia's targets for renewable energy and energy efficiency in its final updated NECP ([40]).

([36]) This Annex is complemented by Annex 7 on energy transition and competitiveness, Annex 8 on the fair transition to climate neutrality, Annex 9 on resource efficiency, circularity, and productivity, and relevant topics in other annexes to this country report.

([37]) See the Commission's (2023) assessment of the draft national energy and climate plan of Latvia.

([38]) The national greenhouse gas emission reduction target is laid down in Regulation (EU) 2023/857 (the Effort Sharing Regulation). The aim is to align action in the sectors concerned with the objective to reach the EU-level economy-wide target of greenhouse gas reductions of at least 55% compared to 1990 levels. The target also applies to the sectors outside the current EU Emissions Trading System, notably buildings (heating and cooling), road transport, agriculture, waste, and small industry (known as the effort sharing sectors).

([39]) The effort sharing emissions for 2022 are based on approximated inventory data. The final data will be established in 2027 after a comprehensive review. Projections on the impact of current policies ('with existing measures', WEM) as per Latvia's draft updated NECP. Latvia's draft updated NECP does not provide emission projections with additional measures for the effort sharing sectors. The information on those projections is based on the latest data that had to be reported by 15 March 2023 under Article 18 of Regulation 2018/1999 (the Governance Regulation).

([40]) The EU target set out in the revised Renewable Energy Directive is to have 42.5% of gross final energy consumption coming from renewable energy sources by 2030, with the aspiration to reach 45%. The formula in Annex I to Directive (EU) 2023/1 791 sets the indicative national contribution for Latvia at 3.7 Mtoe for primary energy consumption. The Commission communicated a corrected national contribution of 3.46 Mtoe in final energy consumption for 2030 in accordance with Article 4(5) of the Energy Efficiency Directive to increase the contribution towards the Union's binding energy efficiency target.

Latvia's renewable energy contribution set in its draft updated NECP, 57% by 2030, is below the contribution of 61%. Its energy efficiency contribution of 3.85 Mtoe in primary energy consumption and 3.54 Mtoe in final energy consumption for 2030 set in the draft updated NECP fall short of the contribution required under the Energy Efficiency Directive.

Sustainable transport has yet to take off in Latvia, which has high potential in electrified rail transport ([41]). At 0.4% in 2022, the share of battery electric vehicles in its passenger car fleet is comparatively low (EU average: 1.2%). Latvia has 450 publicly accessible charging points in 2023, one for every 8 e-vehicles (EU average of 1:10). 89% of passenger transport is by car, but only 46% of freight is transported by road. At 53% - almost all being international transit – the share of rail in freight transport is far above the EU average (16%). However, only 14% of Latvia's rail network is electrified (EU average: 56%).

Latvia has a low capacity to remove carbon from the atmosphere, and its land use, land-use change and forestry sector has become a net greenhouse gas emitter in recent years. Latvia's net carbon removals through land use have fluctuated widely each year since 2017 with emissions from the sector doubling in the most recent GHG inventories ([42]). Greenhouse gas emissions from cropland and grassland are comparatively high, indicating high volumes of emissions from soils with high organic content and diminishing forest stocks (see further below). The forest sink in Latvia has decreased considerably which is the main driving force behind the LULUCF emissions in the country. Latvia projects the sector to remain in net emissions instead of removals by 2030 ([43]). To meet the 2030 target for this sector, additional carbon removals of - 644 kt CO_2eq are needed ([44]).

Latvia faces climate adaptation challenges in the coastal region in particular. Climate change is affecting many sectors, with agriculture and forestry most affected. Rising rainfall levels increase flood hazards, and extreme weather events such as heatwaves are projected to occur more often. The most climate-sensitive sectors are agriculture, infrastructure, energy and transport. The decline of biodiversity and ecosystem services due to climate change poses a risk to the preservation and sustainable development of Latvia's natural capital. It is key to shift away from forestry and agriculture monocultures and to monitor invasive species and pests in order to protect Latvia's ecosystems. The draft updated NECP recognises the need for sustainable land management planning, for protecting organic soils, and for efficient land management. However, it lacks details on the related policies ([45]).

The level of nature protection and biodiversity restoration in Latvia is insufficient. By the end of 2021, Latvia had protected 18.2% of its land and 15.8% of its marine areas. According to the report on the conservation status of habitats and species covered by Article 17 of the Habitats Directive in 2013-2018, less than 10% of habitats and 40% of species were in a good conservation state ([46]). Latvia ranks 24th in the EU on the conservation status of its habitats. Agricultural land has been affected by biodiversity loss and the common farmland bird index declined from 129 in 2015 to 92 in 2020. In addition, the pace of Latvia's circular economy transition is insufficient to meet the EU's goals in the circular economy action plan, also due to low levels of recycling and resource efficiency (see Annex 9).

Despite positive trends, the pace of the sustainable transition of the agri-food system is still slow in Latvia. Between 2015 and 2023, the value of the agricultural sector's annual output fluctuated between EUR 1.2 and 1.6 billion and reached EUR 1.4 billion in 2023. The adoption of organic farming practices is improving and the share of land under organic farming

([41]) Unless otherwise indicated, data in this section refer to 2021. See European Commission, 2023, EU transport in figures, transport.ec.europa.eu.

([42]) EEA data: https://climate-energy.eea.europa.eu/topics/climate-change-mitigation/land-and-forests/data

([43]) Projections submitted in Latvia's draft updated national energy and climate plan, 2023.

([44]) National LULUCF targets of the Member States in line with Regulation (EU) 2023/839.

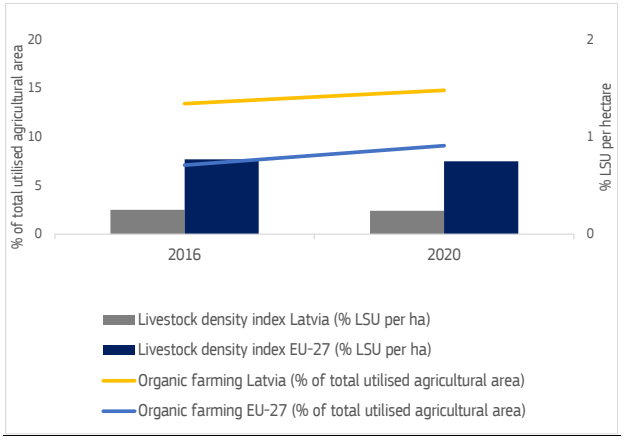
([45]) Also see the Commission's 2023 assessment and recommendation on Latvia's progress on climate adaptation.

([46]) According to the report on the conservation status of habitats and species covered by Article 17 of the Habitats Directive in 2013-2018, against the EU average of 15% and 28%.

reached 15.3% of total utilised agricultural area in 2021, against the EU average of 9.1% ([47]). However, there is still space to grow to help meet the goal of at least 25% of the EU's agricultural land under organic farming by 2030.

Like most of EU Member States Latvia reduced livestock density between 2010 and 2020. Latvia's livestock density index fell from 0.26% in 2010 to 0.24% in 2020 ([48]). However, the total number of livestock units increased approximately 12 000. Intensive dairy cattle and pig farming is one of the most polluting sectors in terms of ammonia emissions into the air. The agricultural sector was responsible for generating 85.2% of all ammonia emissions, against the EU average of 90.7% in 2021 ([49]). In Latvia, a negligible share of land is irrigated but the water abstracted for agricultural purposes accounted for 30.9% of all abstraction in 2019 ([50]). Food consumption is yet to become sustainable. The country produced 130 kg of food waste per person in 2021, roughly in line with the EU average of 131 kg per person. Most was generated by household use. The composting and digestion rate of municipal waste fell to 37 kg per person in 2021, representing 8% of all municipal waste (see Annex 9).

Graph A6.2: **Changes in livestock density and organic farming**



Livestock unit (LSU)/ha of UAA: it measures the stock of animals (cattle, sheep, goats, equidae, pigs, poultry and rabbits) converted in LSUs per hectare of UAA.
Source: Eurostat

Latvia's agricultural sector continues to have a negative impact on soils and to degrade peatlands. Based on the best available information on soil health at Member State level used in the impact assessment for the Soil Monitoring Law ([51]), 24% of Latvian soil could be considered as unhealthy ([52]), mainly due to topsoil compaction, which affects 25% of cropland area. Soil organic carbon content plays a crucial role in boosting water resilience, as it prevents droughts and floods. The total estimated organic carbon content in arable land is 114 megatons, with an average of 31%, above the EU average of 24%. ([53]) However, conservation tillage practices, which increase soil organic carbon, only covered 7% of the tillable area in Latvia ([54]). The net stock change of organic soils in cropland and grassland areas increased to 1 425 kt in 2021 ([55]). Drained peatlands account for 6% of Latvia's agricultural land but are responsible for generating 71% of its agricultural emissions ([56]). Restoring drained

([47]) In 2020. 2021 data is not available.

([48]) Statistics | Eurostat (europa.eu)

([49]) Statistics | Eurostat (europa.eu)

([50]) Annual freshwater abstraction by source and sector [env_wat_abs] – European Environment Agency (europa.eu)

([51]) SWD 417 final of 5.7.2023 - impact assessment for the Directive of the European Parliament and of the Council on Soil Monitoring and Resilience (Soil Monitoring Law), (see. p. 10, pp. 189-190, pp. 835-845).

([52]) However, not all soil degradation processes could be quantified for all land uses. This number simply indicates an order of magnitude.

([53]) C41 Soil organic matter in arable land (europa.eu)

([54]) The latest available data (2016)

([55]) FAOSTAT

([56]) Peatland Atlas 2023

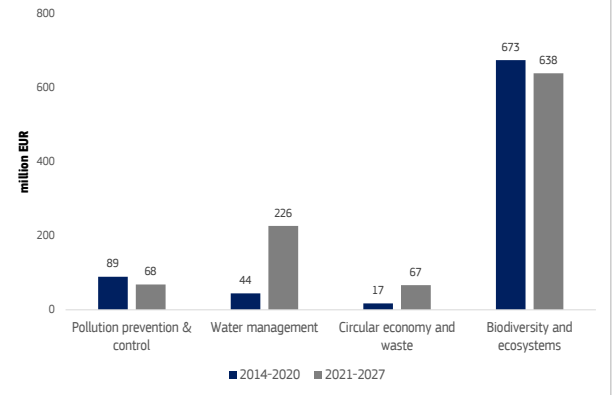
peatlands would be one of the most cost-effective ways to reduce emissions in the agricultural sector.

Air quality in Latvia is generally good, with exceptions. The latest available annual estimates (2021) by the European Environmental Agency indicate that Latvia suffers about 755 years of life lost for every 100 000 inhabitants due to exposure to particulate matter (PM2.5), and 69 years due to NO_2.

Food waste production remains relatively high while composting and digestion levels could be improved. The country produced 130 kg of food waste per capita in 2021, approximately in line with the EU average of 131 kg per capita. Most of it was generated during household activities. Composting and digestion of municipal waste decreased to 37 kg per capita in 2021, representing 8% of total municipal waste.

Latvia would benefit from investing more in biodiversity protection and restoration and in a faster transition to the circular economy. Over the 2014-2020 period, the environmental investment gap was estimated at EUR 826 million per year, equivalent to 3% of GDP, significantly above the EU average of 0.8%. The gap is estimated to be widening over the 2021-2027 period at almost EUR 1 billion per year. There remains an opportunity to increase funding, in particular for biodiversity (EUR 638 million per year). Latvia would also benefit from closing the EUR 67 million investment gap in the circular economy and waste management as well as investing more in sustainable water management and pollution prevention and control.

Graph A6.3: **Environmental investment gap, annual average**



The numbers are computed by the European Commission based on the latest internal reports, Eurostat, EIB and national data sources.
Source: European Commission

Table A6.1: **Indicators tracking progress on the European Green Deal from a macroeconomic perspective**

							Target	Distance	
		2005	2019	2020	2021	2022	2030	WEM	WAM
Progress to climate and energy policy targets									
Greenhouse gas emission reductions in effort sharing sectors [1]	Mt CO_{2eq}, %, pp	8,597.8	1%	-1%	1%	-3%	-17%	-10	-9
Net greenhouse gas removals from LULUCF [2]	Kt CO2eq	-5 905	-1 969	758.000	2 202	4 944	-644	n/a	n/a
Share of energy from renewable sources (1) [3]	%	32%	41%	42%	42%	43%	61%	-	-
Energy efficiency: primary energy consumption [3]	Mtoe	4.5	4.6	4.3	4.5	4.3	3.7		
Energy efficiency: final energy consumption [3]	Mtoe	4.0	4.1	3.9	4.1	4.0	3.5		
							EU-27		Projected
		2018	2019	2020	2021	2022	2021	2022	2030
Green transition: mobility									
Greenhouse gas emissions: road transport	Mt CO2e	-	-	-	3.2	3.1	769.0	786.6	3.2
Share of zero-emission vehicles in new registrations [4]	%	0.8	0.6	2.1	2.9	6.4	9	12.1	n/a
Number of publicly accessible AC/DC charging points		-	-	265	359	499	299178	446956	n/a
Share of electrified railways	%	13.5%	13.5%	13.5%	13.5%	-	56.1%	-	n/a
Green transition: buildings									
Greenhouse gas emissions: buildings	Mt CO2e	-	-	-	1.6	1.6	537.0	486.7	1.3
Final energy consumption in buildings	2015=100	107.8%	103.8%	98.5%	106.6%	99.6%	104.0%	97.2%	
Climate adaptation									
Climate protection gap [5]	score 1-4	-	-	0.9	1.4	1.5	1.5	1.5	n/a
		2018	2019	2020	2021	2022	2020	2021	2022
State of the environment									
Water | Water exploitation index (WEI+) (1) [6]	% of renewable freshwater	0.3	0.4	-	-	-	3.6	-	-
Circular economy | Material footprint [7]	tonnes per person	17.0	17.3	17.6	18.9	19.5	14.2	14.8	14.9
Pollution | Years of life lost due to air pollution by PM2.5 [8]	per 100.000 inhabitants	594	846	479	755	-	545	584	-
Biodiversity | Habitats in good conservation status [9]	%	-					14.7		
Common farmland bird index [10]	2000=100	103	92	92	-	-	78	-	-
Green transition: agri-food sector									
Organic farming	% of total utilised agricultural area	14.47	14.79	14.79	15.34	-	9.1	-	-
Nitrates in groundwater	mg NO_3/litre	55.27	48.84	7.84	-	-	20.42	-	-
Food waste per capita	Kg per capita			145	130	-	130	131	-
Share of soil in poor health [11]	%					24			41
Soil organic matter in agricultural land [12]	Mt per ha	114	-	-	-	-	7,904	-	-

Source: (1) Member States' emission data for 2019 and 2020 are in global warming potential (GWP) values from the 4th Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC). Member States' 2005 base year emissions under Regulation (EU) 2018/842, emissions data for 2021 and 2022, and 2030 projections are in GWP values from the 5th Assessment Report (AR5) of the IPCC. 2021 data are based on the final inventory reports, 2022 data are based on approximated inventory reports and European Environmental Agency's calculation of effort sharing emissions. The final data for 2021 and 2022 will be established after a comprehensive review in 2027. The 2030 target is in percentage change of the 2005 base year emissions. Distance to target is the gap between the 2030 target and projected effort sharing emissions with existing measures (WEM) and with additional measures (WAM), in percentage change from the 2005 base year emissions. The measures included for the 2030 emission projections reflect the state of play as reported in Member States' draft updated national energy and climate plans or, if unavailable, as reported by 15 March 2023 as per Regulation 2018/1999. (2) Net removals are expressed in negative figures, net emissions in positive figures. Reported data are from the 2024 greenhouse gas inventory submission. 2030 value of net greenhouse gas removals as in Regulation (EU) 2023/839 – Annex IIa. (3) The 2030 national objectives for renewable energy and energy efficiency are indicative national contributions, in line with Regulation (EU) 2018/1999 (the Governance Regulation), the EU-level 2030 renewable energy target set out in Directive EU/2018/2001 amended by Directive EU/2023/2413 (the revised Renewable Energy Directive) – 42.5% of gross final energy consumption with the aspiration to reach 45% –, and the formula in Annex I to Directive (EU) 2023/1791 (the Energy Efficiency Directive). (4) Passenger battery electric vehicles (BEV) and fuel cell electric vehicles (FCEV). (5) The climate protection gap refers to the share of non-insured economic losses caused by climate-related disasters, based on modelling of the risk from floods, wildfires, windstorms, and the insurance penetration rate. Scale: 0 (no protection gap) –4 (very high gap) (European Insurance and Occupational Pensions Authority, 2022). (6) Total water consumption in renewable freshwater resources available for a territory and period. (7) Material extractions for consumption and investment. (8) Years of potential life lost through premature death due to exposure to particulate matter with a diameter of less than 2.5 micrometres. (9) Share of habitats in good conservation status according to the records submitted under Art. 17 of the Habitats Directive (Directive 92/43/EEC) for 2013-2018.(10) Multi-species index measuring changes in population abundances of farmland bird species. (11) Source: annex 12 of the Commission's proposal for a soil monitoring law, SWD (2023) 417 final. (12) Estimates of organic carbon content in arable land.

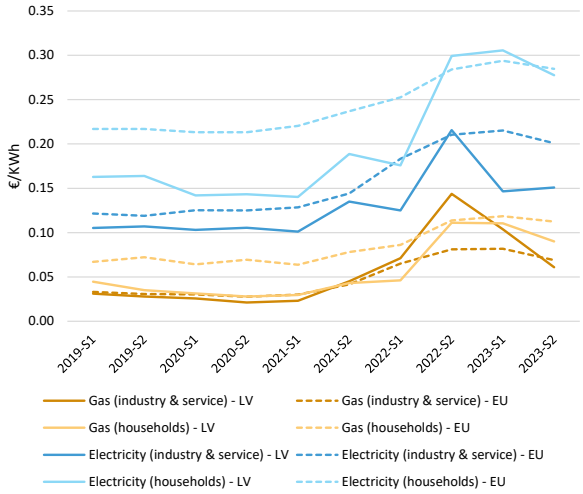
This Annex ([57]) sets out Latvia's progress and challenges in accelerating the net-zero energy transition while bolstering the EU's competitiveness in the clean energy sector ([58]). It considers measures and targets put forward in the draft updated National Energy and Climate Plan (NECP) ([59]).

After successfully phasing out Russian natural gas in 2022, Latvia is advancing in its efforts to synchronise its grid with the European Continental Network by February 2025. The country saw an increase in deployment of solar photovoltaics and new wind capacities, from previously insignificant levels. This enabled increase in the share of renewables in the energy consumption and boosted competitiveness of its energy system. However, due to the virtual overcapacity of the grids, the deployment of new renewables project has been blocked. The sector of clean technologies manufacturing is still in its infancy.

Retail energy prices in Latvia followed the EU's prevailing trends in 2023, declining below late 2022 levels. Average household gas prices decreased by 18% in the second half of 2023 after stabilising in the first semester. Meanwhile, household electricity prices, which had been on a persistent upward trend in the first half of the year, dipped by 9% in the second semester of 2023. After reaching a peak in the second half of 2022, industrial consumers experienced a gradual decline in both average gas and electricity prices, dropping by 28% and 32% respectively in the first half of 2023, widening the price gap with the EU average. Gas prices continued to decrease in the second half of 2023, falling 12% below the EU average, while electricity prices slightly increased but remained 25% below the EU average.

Latvia had some support measures in place since 2021 to cushion the effects of high energy prices for final consumers, while not targeting specifically vulnerable households or firms. Since December 2021 various forms of support measures were provided to households and firms to partially compensate for the rising energy costs, aiming to mitigate the negative socio-economic impact of the unprecedented sharp rise in energy prices. The budget for energy support measures amounted to EUR 622 million in 2023, with a decision on extending support during the next heating season pending, possibly ensuring more targeted support ([60]).

Graph A7.1: **Latvia´s energy retail prices for households and industry & service**



(1) For industry, consumption bands are I3 for gas and IC for electricity, which refer to medium-sized consumers and provide an insight into affordability
(2) For households, the consumption bands are D2 for gas and DC for electricity
(3) Industry prices are shown without VAT and other recoverable taxes/levies/fees as non-household consumers are usually able to recover VAT and some other taxes
Source: Eurostat

In relative terms, electricity prices for non-household consumers have increased significantly compared to the US and Japan. Although there has been a notable decline since the second half of 2022, Latvia's electricity prices have persisted above those of the US and Japan. This could potentially affect the international competitiveness of energy-intensive industries in the country.

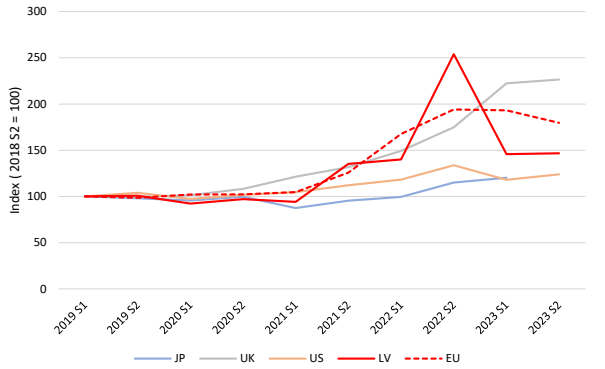
([57]) It is complemented by Annex 6 as the European Green Deal focuses on the clean energy transition and by Annex 8 on the action taken to protect the most vulnerable groups, complementing ongoing efforts under the European Green Deal, REPowerEU and European Green Deal Industrial Plan.

([58]) In line with the Green Deal Industrial Plan and the Net-Zero Industry Act

([59]) Latvia submitted its draft updated NECP in December 2023.

([60]) Stability programme of Latvia 2023–2026, chapter 3.3, section "Energy support".

Graph A7.2: **Trends in electricity prices for non-household consumers (EU and foreign partners)**



(1) For Eurostat data (EU and LV), the band consumption is ID referring to large-sized consumers with an annual consumption of between 2 000 MWh and 20 000 MWh, such as in electricity intensive manufacturing sectors, and gives an insight into international competitiveness
(2) JP = Japan
Source: Eurostat, IEA

Consumer empowerment in the electricity and gas markets is significant in Latvia, with the deployment of smart meters being nearly complete. In Latvia, the share of fixed-price contracts held by households increased for electricity from about 57% in 2021 to about 65% in 2022, and for gas from about 95% to 100%. Likewise, switching rates in electricity increased from around 5% to 6% in 2022, and for gas they decreased from about 2% to about 1%. Switching procedures took on average 10 days for electricity and 20 days for gas. 98% of household consumers had smart meters in 2022 (EU average 80%). One limiting factor is the incomplete legal framework for energy communities, which reforms pursued under the REPowerEU chapter aim to resolve.

Latvia strengthened its security of supply in gas and set objectives for reducing the role of gas by increasing uptake of renewable gasses. With the completion of works on the enhancement of Latvia – Lithuania Interconnection project (ELLI), the security of supply of both countries has been improved, as well as more effective use of the Inčukalns Underground Gas Storage (UGS) facility. Latvia imports natural gas from the global LNG markets through the Lithuanian Klaipeda and Estonian Paldiski LNG terminals, and since 22 April 2024 it can again access the Finnish LNG terminal in Inkoo ([61]). Latvia owns the only underground gas storage facility in the Baltic States, the Inčukalns underground storage (2.3 bcm), which has a key role in ensuring the regions security of supply. This facility is undergoing enhancement works expected to be completed by 2025, which aims to increase the working gas volume to 2.8 bcm. Latvia's gas storage capacity greatly exceeds its national consumption (at 272%). For that reason, based on the Gas Storage Regulation, Latvia's filling target and intermediate targets shall be reduced to 35% of its average annual gas consumption over the previous 5 years. Latvia fulfilled its gas storage obligations last winter, reaching 95.8% by 1 November 2023, and ended the winter season with a storage filled at 46.23% by 1 April 2024. ([62]). Latvia has the potential to replace its entire household gas consumption (0.1 bcm in 2021) with domestically produced biomethane. Measures planned to be undertaken under the Latvian REPowerEU chapter will support this.

Timely synchronisation with the continental European network remains a priority. Like other Baltic states, Latvia is still connected with the BRELL power grid (Belarus and Russia). The project to synchronise the Baltic states' electricity grids with the Continental European network is a flagship Project of Common Interest (PCI) financed by the Connecting Europe Facility to the tune of EUR 1.2 billion, and for Latvia also by the RRF. The project deadline has been brought forward to February 2025 through a joint decision at the highest level taken by the Baltic States and Poland. It will increase security of supply for the region and add additional transmission capacity for integrating renewable electricity.

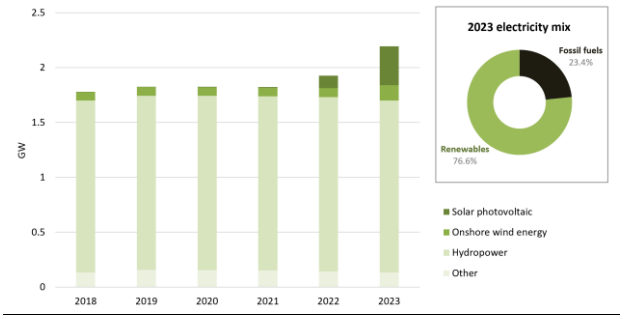
The surge in deployment of renewables continues to be driven by the uptake of solar PVs, while wind capacities remain limited. Although hydro power remains the main source of renewable electricity, the rapid increase in 2022 and 2023 came from solar PVs and to a lesser

([61]) In Early October 2023, the Balticonnector sustained damage putting it temporarily out of operation, with no immediate impact on the security of the gas supply of Latvia. The Balticonnector was repaired and came back online as of the 22nd of April 2022.

([62]) Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage.

extent, new wind capacities. Still, these sources remain significantly below the levels installed in both Estonia and Lithuania. The total installed capacity in solar reached in 2023 was 353 MW (a 240 MW increase) ([63]). Government support programs were essential for this. Installed capacity in onshore wind reached 141 MW (a 59 MW increase), with no offshore capacities still deployed. The state-owned "Latvijas Veja parki" plans to develop 800 MW of onshore wind parks in 8 municipalities. The project was granted the status of national interest and is currently undergoing an environmental impact assessment. Latvia is also pursuing a joint offshore grid project with Estonia under the BEMIP grids offshore corridor, having secured its first offshore hybrid interconnector on the 1st PCI/PMI list. ELWIND interconnector with Estonia combines both transmission and generation assets. consisting of an interconnector and a joint offshore wind park with a capacity which could go up to 2 GW. Commissioning is expected by 2035.

Graph A7.3: **Latvia's installed renewable capacity (left) and electricity generation mix (right)**



(1) "Other" includes solid biofuels and biogas
Source: IRENA, Ember

Latvia's high share of renewables in heating and cooling is mainly related to biomass use. In 2022, it increased to 61% from 57.4% in 2021, with further growth expected as households and district heating providers are transitioning away from natural gas to renewable sources, namely biomass. Innovative district heating systems, including large-scale solar district heating plants or industrial scale heat pumps, are scarce in the country. In terms of transport, the share of renewables remains very low level (3.1%) ([64]).

([63]) IRENA report Renewable Energy Statistics 2024.

([64]) RES SHARES tool, Eurostat

Latvia needs to undertake more swift action to accelerate renewables deployment, notably for wind power. Regulatory amendments made in 2022 are expected to facilitate the development of renewables, notably onshore wind and solar energy. With progress slow, further efforts should be undertaken to address the remaining barriers to permitting and administrative procedures. According to the draft updated NECP, Latvia plans to designate accelerated renewable deployment areas in 2025, with the focus on wind power, solar energy, biomethane production and grid injection areas. Additional actions should be taken in promoting demand response and storage, increasing demand -side flexibility, and promoting power purchasing agreements.

The connection of new large renewable generation facilities is being blocked due to virtual overcapacity of the grid. The current applications for grid connection considerably eclipses the transmission network's capacity, which at the same time remains underutilised. However, a large portion of the applied projects lack credible evidence that they will be implemented. The issuing of new permits has been stopped since July 2023. The unlocking of existing connection capacities should be accompanied by targeted investment in the different elements of the grid. Under its REPowerEU chapter, Latvia set out to prepare a regulatory framework aimed at enabling a more optimised use of existing electricity networks to support connection of additional renewable generation facilities.

Energy efficiency gains slowed down in Latvia, although significant untapped potential exists. In 2022, Latvia had a primary energy consumption of 4.3 Mtoe, a 3.6% decrease compared to 2021 and a 3.0% increase over 2012. It had a final energy consumption of 4.0 Mtoe, a 2.3% decrease compared to 2021 and a 1.6% fall since 2012. In 2022, the residential sector decreased its final energy consumption by 7.5% while the industry sector increased it by 1.3%. In implementing the energy savings obligation for the new obligation period 2021-2030, Latvia opted for a mix of 7 policy measures, including an energy efficiency obligation scheme. As 2021 is the first year of the new obligation period, it is crucial for Latvia to ensure sufficiently ambitious energy saving measures for the whole period if it is to achieve the required amount of cumulative end-use savings by 2030.

Increasing investment in energy efficiency and renovation programmes, currently dependent on the availability of EU funding – is critical. Grants are the most common type of financing scheme for energy efficiency, followed by debt financing, guarantees and energy efficiency obligations. They cover a range of sectors and beneficiaries, with budgets ranging from EUR 3 million to EUR 314 million for the main measure. Under cohesion policy, more than 13% of the overall funding in Latvia covers energy efficiency investment, targeting companies and deep renovation of buildings. Ramping up energy efficiency programmes is dependent on the ability to promote other innovative energy efficiency financing models and to remove administrative barriers where they exist, such as in energy performance contracting in the public sector.

Building renovation programmes need to be expanded for Latvia to achieve its ambitious goals, but also better targeted to help alleviate energy poverty. Latvia's building stock is relatively old, with around 90% of all residential buildings being constructed before 2003. Latvia's Long-Term Renovation Strategy sets out an objective of renovating 30% of multi-apartment buildings by 2030. While there is no available data on the share of buildings renovated to date, it is estimated that planned measures will not be sufficient to meet the ambition. Furthermore, in terms of their design no existing programmes primarily benefit the energy poor. A low number of market surveillance activities on products covered by ecodesign and energy labelling creates concerns about compliance levels.

Latvia has put forward only limited plans to illustrate the increased role hydrogen will have in its economy. The draft updated NECP does not provide information on the capacity of electrolysers in 2030. Still, through BEMIP, Latvia is closely working with its neighbouring Member States on decarbonising regional gas markets. This enabled the PCI selection of the Nordic-Baltic Hydrogen Corridor – a cross-border hydrogen pipeline from hydrogen producing- Finland through the Baltics to offtakers in Poland and Germany.

Latvia is an emerging innovator. In 2023, compared to 2021 (0.2 million), Latvia was characterised by exceptionally high venture capital (VC) investment worth EUR 59.3 million in clean energy technology start-ups and scale-ups. 100% of VC investment was into technology covered by the Net-Zero Industry Act (as a share of VC investment in clean energy technology). EUR 46 million of VC investment went into renewables, which constitutes 96% of VC investment in clean energy technologies.

Latvia remains dependent on imports for clean energy technologies. Some private initiatives are emerging that might propel the manufacturing and utilisation of hydrogen in Latvia. For example, a Riga-based startup is at the forefront of designing innovative nano-coating solutions and essential materials to support the production of electrolysers and fuel cells.

Table A7.1: **Key Energy Indicators**

		Latvia				EU			
		2019	2020	2021	2022	2019	2020	2021	2022
ENERGY DEPENDNCE	**Import Dependency [%]**	**43.9%**	**45.5%**	**38.3%**	**38.7%**	**60.5%**	**57.5%**	**55.5%**	**62.5%**
	of Solid fossil fuels	110.8%	89.6%	93.1%	193.2%	43.3%	35.8%	37.3%	45.8%
	of Oil and petroleum products	100.2%	105.6%	93.7%	101.5%	96.7%	96.8%	91.7%	97.7%
	of Natural Gas	100.0%	100.1%	100.0%	99.8%	89.7%	83.6%	83.6%	97.6%
	Dependency from Russian Fossil Fuels [%]								
	of Natural Gas	100.0%	100.0%	100.0%	22.6%	39.7%	41.3%	41.1%	21.0%
	of Crude Oil	0.0%	0.0%	0.0%	0.0%	28.8%	26.7%	26.4%	19.5%
	of Hard Coal	80.0%	97.0%	40.1%	39.9%	43.5%	49.1%	47.4%	21.5%

		2016	2017	2018	2019	2020	2021	2022
DIVERSIFICATION OF GAS SUPPLIES	**Gas Consumption (in bcm)**	**1.4**	**1.2**	**1.4**	**1.4**	**1.1**	**1.2**	**0.8**
	Gas Consumption year-on-year change [%]	4.2%	-11.7%	17.5%	-5.4%	-17.7%	6.6%	-29.0%
	Gas Imports - by type (in bcm)	**1.1**	**1.2**	**1.4**	**1.4**	**1.1**	**1.2**	**0.8**
	Gas imports - pipeline	1.1	1.2	1.4	1.4	1.1	1.2	0.8
	Gas imports - LNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Gas Imports - by main source supplier (in bcm) (1)							
	Lithuania	-	-	-	-	-	-	0.6
	Russia	1.1	1.2	1.4	1.4	1.1	1.2	0.2

		2019	2020	2021	2022	2023
	LNG Terminals - storage capacity m3 LNG					
	Number of LNG Terminals	0	0	0	0	0
	LNG Storage capacity (m3 LNG)	0	0	0	0	0
	Underground Storage					
	Number of storage facilities	1	1	1	1	1
	Technical Capacity (bcm)	2.2	2.2	1.9	1.9	2.1

		2016	2017	2018	2019	2020	2021	2022	2023
ELECTRICITY/ENERGY	**Gross Electricity Production (GWh) (2)**	**6,424**	**7,531**	**6,725**	**6,438**	**5,725**	**5,846**	**4,997**	-
	Combustible Fuels	3,767	3,000	4,170	4,174	2,940	2,990	2,016	-
	Nuclear	0	0	0	0	0	0	0	-
	Hydro	2,530	4,381	2,432	2,108	2,603	2,708	2,750	-
	Wind	128	150	122	154	177	141	190	-
	Solar	0	0	1	3	5	7	41	-
	Geothermal	0	0	0	0	0	0	0	-
	Other Sources	- 0	0	0	0	0	- 0	0	-
	Gross Electricity Production [%]								
	Combustible Fuels	58.6%	39.8%	62.0%	64.8%	51.4%	51.1%	40.3%	-
	Nuclear	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Hydro	39.4%	58.2%	36.2%	32.7%	45.5%	46.3%	55.0%	-
	Wind	2.0%	2.0%	1.8%	2.4%	3.1%	2.4%	3.8%	-
	Solar	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.8%	-
	Geothermal	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Other Sources	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-
	Net Imports of Electricity (GWh)	**1,033** -	**64**	**909**	**1,118**	**1,626**	**1,773**	**2,312**	-
	As a % of electricity available for final consumption	15.9%	-1.0%	13.6%	16.8%	24.3%	25.6%	34.4%	-
	Electricity Interconnection [%]	-	**45.3%**	**46.1%**	**53.9%**	**42.1%**	**47.2%**	**82.4%**	**69.4%**
	Share of renewable energy consumption - by sector [%]								
	Electricity	51.3%	54.4%	53.5%	53.4%	53.4%	51.4%	53.3%	-
	Heating/cooling	51.8%	54.6%	55.4%	57.7%	57.1%	57.4%	61.0%	-
	Transport	2.4%	2.3%	4.7%	4.6%	6.7%	6.4%	3.1%	-
	Overall	37.1%	39.0%	40.0%	40.9%	42.1%	42.1%	43.3%	-

		2019	2020	2021	2022	2023
CLEAN ENERGY	**VC investments in climate tech start-ups and scale-ups (EUR Mln)**	**2.70**	**1.59**	**0.18**	**48.16**	**59.31**
	as a % of total VC investment (3) in Latvia start-ups and scale-ups	45.3%	6.1%	0.1%	72.7%	86.5%
	Research & Innovation spending in Energy Union R&i priorites					
	Public R&I (EUR mln)	12.6	13.2	11.1	-	-
	Public R&I (% GDP)	0.03%	0.03%	0.02%	-	-
	Private R&I (EUR mln)	4.3	-	-	-	-
	Private R&I (% GDP)	0.01%	-	-	-	-

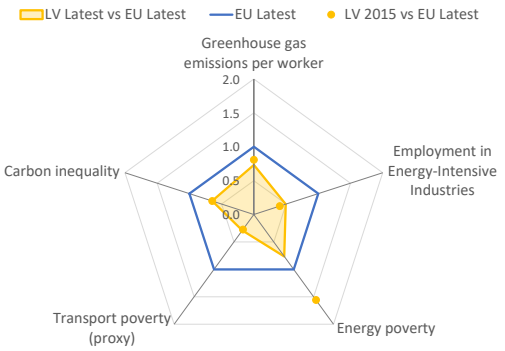
(1) The ranking of the main suppliers is based on the latest available figures (for 2022)
(2) Venture Capital investment includes Venture Capital deals (all stages), Small M&A deals and Private Equity (PE) growth deals (for companies that have previously been part of the portfolio of a VC investment firm or have received Angel or Seed funding).
Source: Eurostat, Gas Infrastructure Europe, JRC elaboration based on PitchBook data (03/2024), JRC SETIS (2024)

This Annex monitors Latvia's progress in ensuring a fair transition towards climate neutrality and environmental sustainability, particularly for workers and households in vulnerable situations. Latvia's green economy is contracting. Between 2015 and 2021, total jobs in the environmental goods and services sector decreased by 12% (to around 24 000) (EU: +18.2%), reaching 2.8% of total employment (EU: 2.7%). Also, between 2015 and 2022, the greenhouse gas emission intensity of Latvia's workforce (see Graph A8.1 and Table A8.1) declined from 11.6 to 10.5 tonnes per worker, below the EU average (14.3 tonnes per worker in 2022) ([65]), indicating a positive trend in the green transition. Upskilling and reskilling measures will promote smooth labour market transitions and ensure a fair green transition in line with the Council Recommendation on ensuring a fair transition towards climate neutrality ([66]) and the implementation of the REPowerEU plan. Latvia's recovery and resilience plan envisages investments in areas relevant to the green transition ([67]), complementing the territorial just transition plan and wider upskilling and reskilling actions supported by the European Social Fund Plus (ESF+).

Employment in sectors that are most affected by the green transition remains low. In 2023, employment in Latvia's energy-intensive industries ([68]) comprised 1.7% of total employment (3.5% in the EU). Employment in mining and quarrying has fallen by 10.3% since 2015 (to around 3 500 workers in 2023). The job vacancy rate in construction (see Graph A8.2), a key sector for the green transition as regards renovation strategies, is lower than the EU average (2.8% vs 3.6% in EU in 2023). However, at the same time, 78% of small and medium-sized enterprises (SMEs) in the sector indicated that skills shortages are holding them back in general business activities ([69]).

The green transition requires the reskilling and upskilling of workers in energy-intensive industries. In Latvia, 33% of SMEs think that skills required for greening business activities are becoming more important (EU: 42%) ([69]). If Latvia matches its projected contribution to the EU's 2030 renewable energy target, between 500 and 1 000 additional skilled workers will be needed for the deployment of wind and solar energy (e.g. the installation and maintenance of wind turbines and solar panels), which may require an investment in skills of EUR 1.7-2.1 million ([70]). To address this challenge, the ESF+ will invest approximately EUR 15 million into developing more structural upskilling and reskilling and flexible learning pathways as well as into increasing green skills and boosting the economy in Latvia. To mitigate the social impact of the peat sector's transition in the most affected areas, the Just Transition Fund will also provide EUR 16.9 million for upskilling and reskilling affected workers. This investment will help equip workers with skills that correspond to labour market needs. It will also develop a sustainable and socially responsible support framework for adult learning and support the acquisition of advanced digital skills.

Graph A8.1: **Fair transition challenges in Latvia**



Source: Eurostat, EU Labour Force Survey, EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects (see Table A8.1).

Energy poverty indicators have been improving and remain below the EU average in recent years, but the spike in energy prices

([65]) Workforce-related calculations are based on the EU Labour Force Survey. Note, in the 2023 country report for Latvia, such indicators were calculated based on employment statistics in the national accounts. This may result in limited comparability across the two reports.

([66]) Council Recommendation of 16 June 2022 on ensuring a fair transition towards climate neutrality (2022/C 243/04) covers employment, skills, tax-benefit and social protection systems, essential services and housing.

([67]) See the 2022 country report (Annex 6).

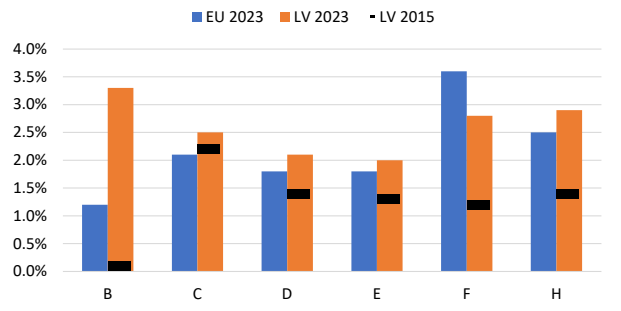
([68]) Mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)

([69]) Eurobarometer on skills shortages, recruitment, and retention strategies in small and medium-sized enterprises.

([70]) EMPL-JRC AMEDI+ project.

could aggravate the situation. The share of the population unable to keep their homes adequately warm decreased from 14.5% in 2015 to 7.1% in 2022, below the EU average (9.3%) ([71]). However, the indicator increased by 2.2 percentage points between 2021 and 2022 on the back of energy price increases due to supply constraints caused by the COVID-19 pandemic and Russia's war of aggression against Ukraine. In particular, 18.3% of the population at risk of poverty (AROP) (EU: 20.1%) and 6.9% of lower middle-income households (in deciles 4-5) (EU: 11.6%) were unable to keep their homes adequately warm in 2022. Moreover, in January 2023, 10.8% of the population at risk of poverty spent a considerable proportion of their budget (more than 6%) on private transport fuels (EU: 37.1%) ([72]).

Graph A8.2: **Job vacancy rate in transforming sectors and mining and quarrying**



B - Mining and quarrying
C - Manufacturing
D - Electricity, gas, steam and air conditioning supply
E - Water supply; sewerage, waste management and remediation activities
F - Construction
H - Transportation and storage
Source: Eurostat jvs_a_rate_r2.

Despite being below/equal the EU average, environmental inequalities remain an issue in Latvia. In 2021, the consumption footprint for 20% of the population with the highest income in Latvia was 1.8 times higher than the footprint of the poorest 20% in 2021 (EU: 1.8) ([73]). For both groups, the consumption footprint is highest for food and housing. In Latvia, the average levels of air pollution in 2021 stood below the EU average (10.7 vs 11.4 µg/m3 PM2.5), with 59% of the population living in regions exposed to critical levels of air pollution ([74]). This had led to a significant impact on health, affecting vulnerable groups in particular, and around 1400 premature deaths annually ([75]).

Latvia is making progress in implementing policies for a fair transition towards climate neutrality, although further targeting of the specific challenges is needed in the context of the Council Recommendation of June 2022. Latvia is taking steps to improve upskilling and reskilling policies and increase adult participation in training. However, labour shortages in key sectors of the green economy remain an issue. Areas that require more attention include the development of green skills among the labour force, support for social entrepreneurs and SMEs, social dialogue in green employment, the use of an evidence-based approach to policy making, as well as the regional approach, which needs to be strengthened when implementing green programmes in targeted sectors ([76]).

([71]) Energy poverty is a multi-dimensional concept. The indicator used focuses on an outcome of energy poverty. Further indicators are available at the Energy Poverty Advisory Hub.

([72]) Affordability of private transport fuels is one key dimension of transport poverty. The indicator has been developed in the context of the EMPL-JRC GD-AMEDI/AMEDI+ projects. Methodology explained in Economic and distributional effects of higher energy prices on households in the EU.

([73]) Developed in the context of the EMPL-JRC DISCO(H) project. Methodology explained in Joint Research Centre, 2024. Carbon and environmental footprint inequality of household consumption in the EU. JRC137520. The EU average refers to EU27 without Italy (household income data not available for IT in the HBS)

([74]) Two times higher than the recommendations in the WHO Air Quality Guidelines (annual exposure of 5µg/m^3).

([75]) EEA- Air Quality Health Risk Assessment

([76]) Based on the monitoring review of the Council Recommendation on ensuring a fair transition towards climate neutrality, which took place in October 2023.

Table A8.1: **Key indicators for a fair transition in Latvia**

Indicator	Description	LV 2015	LV	EU
GHG per worker	Greenhouse gas emissions per worker – CO_2 equivalent tonnes	11.6	10.5 (2022)	14.3 (2022)
Employment EII	Employment share in energy-intensive industries, including mining and quarrying (NACE B), chemicals (C20), minerals (C23), metals (C24) and automotive (C29)	1.4%	1.7% (2023)	3.5% (2023)
Energy poverty	Share of the total population living in a household unable to keep its home adequately warm	14.5%	7.1% (2022)	9.3% (2022)
Transport poverty (proxy)	Estimated share of the AROP population that spends over 6% of expenditure on fuels for personal transport	10.1%	10.8% (2023)	37.1% (2023)
Carbon inequality	Ratio between the consumption footprint of the top 20% vs bottom 20% of the income distribution	1.8	1.8 (2021)	2.7 (2021)

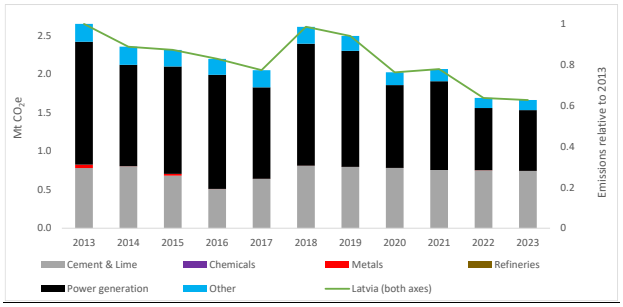
Source: Eurostat (env_ac_ainah_r2, lfsa_egan2d, ilc_mdes01), EU Labour Force Survey (break in time series in 2021), EMPL-JRC GD-AMEDI/AMEDI+ and DISCO(H) projects.

ANNEX 9: RESOURCE PRODUCTIVITY, EFFICIENCY AND CIRCULARITY

The green transition of industry and the built environment, in particular decarbonisation, resource efficiency and circularity, is essential to boost Latvia's competitiveness ([77]). In this regard, priorities for Latvia are waste management and the use of circular materials in industry and construction.

Latvia's circular economy transition is insufficient to achieve the EU Circular Economy Action Plan goals. Latvia's material footprint increased from 14.4 to 20 tonnes per capita between 2016 and 2022, remaining above the EU average of 14.8 tonnes per capita. Waste production per capita doubled between 2010 and 2020, when it reached 1.5 tonnes per capita. The 2022 Eco-Innovation Scoreboard placed the country among the average performers in terms of eco-innovation. Latvia scored 105.4, which indicates the country has some ground to make up in eco-innovation. Furthermore, as of September 2023, Latvia totalled 6 awarded EU Ecolabel licences and 92 products with the EU Ecolabel, showing an increase compared to the last few years. There is still room to make better use of the potential of the circular economy transition to drive the decarbonisation of Latvia's industry.

Graph A9.1: **ETS emissions by sector since 2013**



Source: European Commission

In 2023, the sectors covered by the EU emissions trading system (ETS) in Latvia ([78]) emitted 33% less greenhouse gases than in 2019. In 2023, about half (47%) of the greenhouse gases from Latvia's ETS installations came from power generation, slightly lower than the EU average (57%). Of the total emissions from all industry sectors, cement and lime production accounted for 85%, with 15% coming from other industries. Since 2019, the power sector has registered higher reductions (49%) than the industry sectors (11%). Between 2013 and 2019, greenhouse gas emissions fluctuated in both the power sector and the industry sector, with 2019 levels being 6% below 2013 levels.

Latvia is not keeping up with the EU average resource efficiency and productivity levels in the industrial sector. Latvia's circular material use rate was only 5.4% in 2022, about half of the EU average of 11.5%. Resource productivity has remained relatively stable and lower than the EU average in the last few years. It stood at 1.6 purchasing power standards per kilogram in 2022. Latvia relies on imports more than the EU average: its material import dependence rate stood at 32% in 2022, compared with an EU average of 22.4%. This makes the country comparatively more vulnerable to supply chain disruptions. Furthermore, the manufacturing sector accounted for 15.2% of water abstracted in 2019 compared with an EU average of 9.2%.

There is still room for reducing the industry's impact on the environment. The impact of particulate matter emissions from industry on air quality is higher than the EU average. The emissions of PM2.5 per economic output (EUR'10) ([79]) decreased from 0.44 grams in 2017 to 0.40 grams in 2020, versus an EU average of 0.07 grams/EUR'10 in 2020. A similar trend was reported for PM10, with 0.5 grams/EUR'10 in 2017 and 0.44 grams/EUR'10 in 2020, versus an EU average of 0.10 grams/EUR'10 in 2020. Moreover, between 2010 and 2020, Latvian industry reduced its emissions into the air of some pollutants and was among the top 5 countries for reduction of non-methane volatile organic compounds and PM10. However, releases of heavy metals (cadmium, mercury, nickel, and lead) into water increased by more than 20%. Latvia would benefit from improving hazardous waste treatment. In 2020, the country produced 74 kg of hazardous

([77]) See also Annexes 6, 7 and 12.

([78]) This analysis excludes air travel. The data for 2023 reflects verified emissions as of 14 May 2024 and may still be revised due to late data submissions. For more details and the data sources, see Weitzel, M; van der Vorst, C. (2024), Uneven progress in reducing emissions in the EU ETS, JRC Science for policy brief, JRC138215, Joint Research Centre.

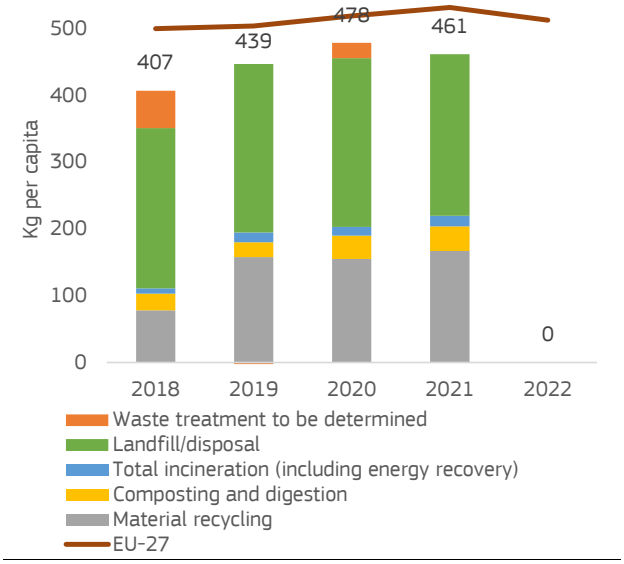
([79]) In 2010 prices.

waste per capita – below the EU average of 214 kg per capita – and treated only 21.6% of it.

Latvia has made significant progress with its waste management system over the last decade, but there is still room for improvement. The municipal waste recycling rate increased from 25.2% in 2016 to 44.1% in 2021. However, Latvia missed the EU target of recycling 50% of municipal waste by 2020 and is assessed to be at risk of missing the EU target of recycling 55% by 2025. Although Latvia is strengthening the regional approach to waste management, a lack of incentives for municipalities still holds back investment in separate collection, in particular in Riga. On a positive note, the plastic packaging recycling rate is increasing and stands above the EU average, reaching 41.6% in 2021. In the last few years, Latvia has decreased its landfilling rate, but it remains highly dependent on this waste disposal method. The country risks missing the target of a maximum of 10% of landfilling by 2035. Latvia registered only 1 new patent on waste and recycling in 2020.

The built environment system continues to exacerbate the depletion of resources. The residential floor area per capita stood below the EU average in 2020 (33.52 versus 36.48 m^2 per capita) but has been increasing more quickly than in other EU countries. A similar trend can be observed for the non-residential floor area. In 2020, Latvia submitted a long-term renovation strategy aiming to decarbonise the building stock. Despite some positive trends, there is still room for improving construction and demolition waste management. After a peak in 2014, the amount of waste generated from construction and demolition activities per capita has decreased and stands below the EU average. The proportion of backfilling has remained stable since 2014 and stood at 9.6% in 2020, below the EU average of 9.9%. The national waste management plan for 2021-2028 includes end-of-waste criteria for construction and demolition waste.

Graph A9.2: **Treatment of municipal waste**



Source: Eurostat

The built environment system has a high impact on the climate, and there is need for both mitigation and adaptation strategies. Important mitigation strategies include whole-life carbon approaches for buildings, Latvia is yet to adopt these and integrate them into its regulatory framework. Extreme weather events such as floods are increasing in intensity and frequency all over Europe. Latvia took action to protect the population from extreme flood events, with support from the Cohesion Fund, the European Regional Development Fund and the Recovery and Resilience Facility.

Table A9.1: **Circularity indicators**

	2018	2019	2020	2021	2022	2023	EU-27	Latest year
Industry								
Resource productivity (purchasing power standard (PPS) per kilogram)	1.4	1.5	1.5	1.4	1.6	-	2.5	2022
Circular material use rate (%)	4.7	4.7	5.2	5.6	5.4	-	11.5	2022
Eco-innovation index (2013=100)	97.8	97.8	97.2	102.1	105.4	-	121.5	2022
Recycling of plastic packaging (%)	35.8	35.4	35.9	41.6	-	-	40.7	2021
Cost of air emissions from industry (EUR bn)	0.4	0.4	0.3	0.4	-	-	352.7	2021
Built environment								
Recovery rate from construction and demolition waste (%)	97.0	-	99.0	92.0	-	-	89.0	2020
Soil sealing index (base year = 2006)	101.7	-	-	-	-	-	103.4	2018
Non-residential floor area (m^2 per capita)	10.7	11.0	11.2	-	-	-	18.0	2020
Waste backfilled (%)	8.8	-	9.6	-	9.8	-	9.9	2020

Source: Eurostat, European Environment Agency

Digital transformation is key to ensuring a resilient and competitive economy. In line with the Digital Decade Policy Programme, and in particular with the targets in that Programme for digital transformation by 2030, this Annex describes Latvia's performance on digital skills, digital infrastructure/connectivity and the digitalisation of businesses and public services. Where relevant, it makes reference to progress on implementing the Recovery and Resilience Plan (RRP). Latvia allocates 23% of its total Recovery and Resilience Facility budget to digital (EUR 470 million) ([80]). Under Cohesion Policy, an additional EUR 0.5 billion (11% of the country's total Cohesion Policy funding) is allocated to the country's digital transformation ([81]).

The Digital Decade Policy Programme sets out a pathway for EU's successful digital transformation by 2030. Latvia's national roadmap outlines the actions it intends to take to reach the objectives and targets at national level. The first report on the State of the Digital Decade highlighted the need to accelerate and deepen the collective efforts to reach the EU-wide targets and objectives ([82]). Among others, a digitally skilled population increases the development and adoption of digital technologies and leads to productivity gains and new business models. It also leads to higher inclusion and participation in an environment increasingly shaped by the digital transformation ([83]). Digital technologies, infrastructure and tools all play a role in addressing the current structural challenges, including strategic dependencies, cybersecurity and climate change.

Tackling the digital skills gap remains one of Latvia's key digital challenges. Latvia scores below the EU average for basic digital skills, with 45.3% of its population having basic digital skills. The country is above the EU average when it comes to ICT graduates and female ICT specialists, but the shortage of digital skills and ICT specialists is a key obstacle to more widespread use of digital solutions by the private sector in Latvia. In 2022, 59.2% of companies in Latvia reported hard-to-fill vacancies for jobs requiring ICT skills.

Latvia has scope to improve its VHCN coverage and 5G deployment. Latvia has already allocated a radio spectrum for 5G, but performs below the EU average on very high capacity network (VHCN) coverage and has limited available commercial 5G services to businesses and individuals ([84]). As of 2023, 5G coverage had reached 53.1% of populated areas in Latvia, which is considerably lower than the EU average of 89.3%. Several activities are ongoing to support the development of industrial and innovative applications of 5G technology. Latvia is also involved in various CEF Digital national and cross-border projects in connection with smart communities, implementation of 5G technology solutions.

Digitalisation of businesses remains an issue for Latvia. Latvia is closing the gap with the EU average on most indicators. 48% of small to medium-sized firms have at least basic digital intensity, compared to an EU average of 58%. At 37%, the take-up of data analytics is already slightly above the EU average of 33%. In 2022, 3.8% of enterprises in Latvia reported ICT service outage due to cyberattacks (e.g. ransomware attacks, denial of service attacks). Over the same year, 39.7% of enterprises developed or reviewed their ICT security policy within the previous 12 months.

Latvia performs well on digital public services. Latvia scores well above the EU average for digital public services for citizens, and slightly above to the EU average for digital public services for businesses. Moreover, its share of e-government users exceeds the EU average. The Latvian RRP includes measures that are expected to support the digitalisation of public processes

([80]) The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation.

([81]) This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

([82]) European Commission (2023): Report on the state of the Digital Decade 2023, 2023 Report on the state of the Digital Decade | Shaping Europe's digital future (europa.eu).

([83]) See for example OECD (2019): OECD Economic Outlook, Digitalisation and productivity: A story of complementarities, OECD Economic Outlook, Volume 2019 Issue 1 | OECD iLibrary (oecd-ilibrary.org) and OECD (2019): Going Digital: Shaping Policies, Improving Lives – Summary, https://www.oecd.org/digital/going-digital-synthesis-summary.pdf.

([84]) Some services have been launched since the data was collected in 2021.

Table A10.1:**Key Digital Decade targets monitored by the Digital Economy and Society Index indicators**

	Latvia			EU	Digital Decade target by 2030 (EU)
	2022	2023	2024	2024	
Digital skills					
At least basic digital skills	**51%**	**51%**	**45%**	**56%**	**80%**
% individuals	2021	2021	2023	2023	2030
ICT specialists ([1])	**3.8%**	**4.4%**	**4.4%**	**4.8%**	**20 million**
% individuals in employment aged 15-74	2021	2022	2023	2023	2030
Digital infrastructure/connectivity					
Fixed very high capacity network (VHCN) coverage	**63%**	**63%**	**71%**	**79%**	**100%**
% households	2021	2022	2023	2023	2030
Fibre to the premises (FTTP) coverage ([2])	**61%**	**61%**	**62%**	**64%**	**-**
% households	2021	2022	2023	2023	
Overall 5G coverage	**0%**	**42%**	**53%**	**89%**	**100%**
% populated areas	2021	2022	2023	2023	2030
Digitalisation of businesses					
SMEs with at least a basic level of digital intensity	**38%**	**NA**	**48%**	**58%**	**90%**
% SMEs	2021		2023	2023	2030
Data analytics	**NA**	**NA**	**37%**	**33%**	**-**
% enterprises			2023	2023	
Cloud	**22%**	**22%**	**29%**	**39%**	**-**
% enterprises	2021	2021	2023	2023	
Artificial intelligence	**4%**	**4%**	**5%**	**8%**	**-**
% enterprises	2021	2021	2023	2023	
AI or cloud or data analytics ([3])	**NA**	**NA**	**48%**	**55%**	**75%**
% enterprises			2023	2023	2030
Digitalisation of public services					
Digital public services for citizens	**87**	**87**	**88**	**79**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Digital public services for businesses	**86**	**86**	**87**	**85**	**100**
Score (0 to 100)	2021	2022	2023	2023	2030
Access to e-health records	**NA**	**79**	**85**	**79**	**100**
Score (0 to 100)		2022	2023	2023	2030

(1) The 20 million target represents about 10% of total employment.
(2) The fibre to the premises coverage indicator is included separately as its evolution will also be monitored separately and taken into consideration when interpreting VHCN coverage data in the Digital Decade.
(3) At least 75% of EU enterprises have taken up one or more of the following, in line with their business operations: (i) cloud computing services; (ii) big data; (iii) artificial intelligence.

Source: Digital Economy and Society Index

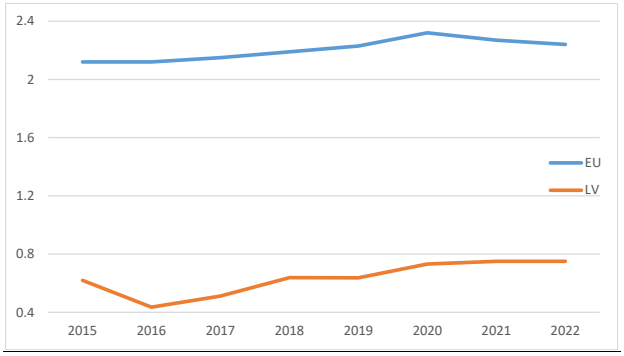
and services, among others to achieve the 2030 Digital Decade targets. Regarding online access to medical records, Latvia scores 85 out of 100, above the EU average. It continues to take measures to improve services in this area. Latvia has an electronic identification (eID) scheme that has been notified under the eIDAS Regulation and is already available to 39% of the public. Latvia is also involved in various cross-border projects, such as the 'Nordic-Baltic eID Project' (NOBID), which aims to harmonise various eID solutions in eight Nordic and Baltic countries in order to ensure cross-border access to digital services in the region.

This Annex provides a general overview of the performance of Latvia's research and innovation system, which is essential to deliver the twin transition and ensuring long-term competitiveness.

Latvia is an 'emerging innovator' - its performance has been increasing slowly in recent years. According to the 2023 edition of the European Innovation Scoreboard ([85]), the country's improvement trends continue although at a slower rate than the EU average. The main reasons for the low scores are a decline in 'firm R&D investment' and low 'government support for business R&D'.

R&D intensity ([86]) stagnated at 0.75% ([87]) of GDP in 2022 and remains significantly below the EU average of 2.24%. Unlike in most Member States, business R&D expenditure (0.27% of GDP) is significantly lower than public R&D spending (0.48% of GDP) and is the lowest in the EU (EU average 1.48% of GDP). Public expenditure on R&D remains low and adversely impacts the entire R&I system, including human capital endowment and research outputs. Absorption of the nearly EUR 200 million earmarked for R&I in the Latvian recovery and resilience plan (RRP) and of the EUR 342 million allocated to R&I in the Latvian cohesion programming started recently; both have the potential to increase the total R&D spending in Latvia. However, to double R&D intensity ([88]), Latvia needs to place further and continuous emphasis on increasing public R&D spending.

Graph A11.1: **R&D intensity as % of GDP 2015-2022**



Source: Eurostat, 2023

The lack of human capital is holding back research and innovation performance. The low number of researchers both in business and in the public sector (1.3 and 3.8 per thousand active population, EU averages 5.4 and 4.2 per thousand active population respectively ([89])) limits the research and innovation capacity of Latvia. The low but slowly increasing number of doctoral graduates ([90]) and science, technology, engineering and mathematics (STEM) graduates ([91]) further exacerbates the situation. The new doctoral and academic career model, part of the RRP, and the education reform should lead to higher numbers of highly skilled workers. Going forward, it will be necessary to continue improving working conditions and to ensure predictable financing to retain talent in Latvia ([92]). Additionally, Latvia could consider attracting talent from abroad, for example through targeted scholarships, as a short-term solution.

The quality of R&I outputs remains low. As illustrated by the percentage of scientific publications within the top 10% most cited scientific publications worldwide (4.4% in Latvia, 9.6% in the EU ([93])), Latvia performs significantly below the EU average in terms of quality of research outputs. This is caused by the lack of

([85]) 2023 European Innovation Scoreboard (EIS), country profile, Latvia: https://ec.europa.eu/assets/rtd/eis/2023/ec_rtd_eis-country-profile-lv.pdf. The EIS provides a comparative analysis of innovation performance in EU countries, including the relative strengths and weaknesses of their national innovation systems (also compared to the EU average).

([86]) Defined as gross domestic expenditure on R&D as a percentage of GDP.

([87]) Source: Eurostat.

([88]) Target of 1.5% of GDP is set in the National Development Plan of Latvia for 2021-2027: https://www.pkc.gov.lv/sites/default/files/inline-files/NAP2027_ENG.pdf.

([89]) Source Eurostat.

([90]) 183 Doctoral gradates in 2022 according to Latvia Statistical office https://data.stat.gov.lv/pxweb/en/OSP_PUB/START__IZG__IG__IGA/IGA010/table/tableViewLayout1/.

([91]) 8.7 per thousand population, see Table A11.1 source Eurostat.

([92]) Source: OECD Economic Surveys: Latvia 2022 https://doi.org/10.1787/c0113448-en.

([93]) in 2020, Source: Science-Metrix.

Table A11.1:**Key innovation indicators**

Latvia	2010	2015	2020	2021	2022	EU average (1)
Key indicators						
R&D intensity (GERD as % of GDP)	0.61	0.62	0.73	0.75	0.75	2.24
Public expenditure on R&D as % of GDP	0.38	0.47	0.48	0.46	0.48	0.73
Business enterprise expenditure on R&D (BERD) as % of GDP	0.22	0.15	0.26	0.28	0.27	1.48
Quality of the R&I system						
Scientific publications of the country within the top 10% most cited publications worldwide as % of total publications of the country	1.56	3.98	4.36	:	:	9.6
Patent Cooperation Treaty patent applications per billion GDP (in PPS)	0.48	0.85	0.98	:	:	3.4
Academia-business cooperation						
Public-private scientific co-publications as % of total publications	5.54	6.54	7.20	8.67	8.91	7.62
Public expenditure on R&D financed by business enterprise (national) as % of GDP	0.050	0.051	0.037	0.038	:	0.054
Human capital and skills availability						
New graduates in science & engineering per thousand pop. aged 25-34	13.1	9.7	8.4	8.7	:	16.9
Public support for business enterprise expenditure on R&D (BERD)						
Total public sector support for BERD as % of GDP	:	0.07	:	0.05	:	0.204
R&D tax incentives: foregone revenues as % of GDP	0.000	0.002	:	:	:	0.104
Green innovation						
Share of environment-related patents in total patent applications filed under the Patent Cooperation Treaty (%)	0.00	3.31	11.27	:	:	14.65
Finance for innovation and economic renewal						
Venture capital (market statistics) as % of GDP	0.016	0.022	0.014	0.023	0.035	0.085
Employment share of high growth enterprises measured in employment (%)	:	17.42	12.23	:	:	12.51

(1) EU average for the latest available year with the largest number of country data.
Source: Eurostat, OECD, DG JRC, Science-Metrix (Scopus database and EPO's Patent Statistical Database), Invest Europe

researchers, the historic underinvestment in R&D and a fragmented research and innovation system ([94]). The consolidation of universities and the creation of the Strategic Council for Research and Innovation, both parts of reforms within the RRP, should reduce the fragmentation. This would also contribute to increasing Latvia's participation in Horizon ([95]), which can contribute to research excellence and international collaboration.

The innovation potential of the private sector is untapped. Innovation activity in the private companies is subdued, as indicated by the low number of patent applications (0.98 patent application per billion GDP compared to the EU average of 3.4 in 2020 ([96])). This is caused primarily by low private R&D spending and an overall weak public science base. Although the introduction of the Latvian Innovation Fund's industry research programme and investments from the RRP might boost private sector innovation, Latvia should consider introducing more incentives for businesses to invest in R&D and report their R&D activities. There also continues to be a shortage in venture capital (0.02% of GDP in 2022 ([97])), hindering the formation of start-ups.

([94]) Source: OECD Economic Surveys: Latvia 2022 https://doi.org/10.1787/c0113448-en.

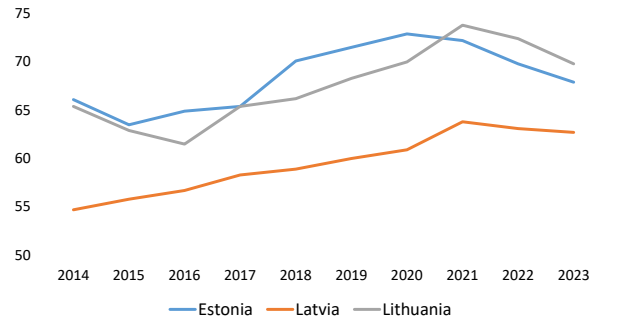
([95]) Horizon Europe and its predecessor Horizon 2020 are the EU's main research and innovation funding programmes.

([96]) Source: EPO's Patent Statistical Database.

([97]) EU average is 0.085% of GDP Source: Invest Europe.

Productivity growth in Latvia is increasing, but a gap with the EU average remains. Over the past two decades, productivity in Latvia grew rapidly as the economy converged towards the EU average. While the country is still catching up, its labour productivity rate has begun to slow down, maintaining its productivity gap with its Baltic peers and the rest of the EU. In 2023, Latvia's labour productivity (per hour worked, in purchasing power standards, see graph A12.1) as a percentage of the EU average was 62.7%, trailing both Estonia (67.9%) and Lithuania (69.8%). This could be partly attributable to its economic structure, which is dominated by low and medium-low tech firms, as well as to regional disparities (see Annex 17). Modernising export activities and boosting R&D and innovation from their low base have been highlighted as measures to close the productivity gap ([98]).

Graph A12.1: **Labour productivity (per hour worked, in purchasing power standards, % of EU)**



Source: Eurostat

The low rate of productivity in the economy is largely determined by markedly low productivity in the manufacturing sector. Labour productivity in industry was -2.7% in 2023 (compared to an EU average of -1.2%, see table A12.1). Low-tech industries clearly dominate the Latvian manufacturing industry, as traditional industries (food, timber processing) represent almost half the total value added of manufacturing. Low and medium-low technology intensity sectors accounted for around 85% of the total manufacturing labour force ([99]). An increase in industrial productivity can be achieved by allocating resources to higher tech (and higher productivity) sectors.

Similarly, manufacturing receives only about 11% of inward foreign direct investment, and this is directed to sectors with relatively low technology. The largest foreign direct investment sector within manufacturing is textiles, wood and paper products, printing ([100]). However, between 2013 and 2019 the higher tech sectors, including biomedicine and IT, grew rapidly and more quickly than the lower technology sectors. Improving skills and the business environment could reinforce this trend.

Productivity among small and medium-sized enterprises (SMEs) is waning, and the digital and green transition is lagging. The bulk of the Latvian economy consists of SMEs. They account for 69.7% of value added, well above the EU average (around 50%). When it comes to knowledge intensity, 67% of businesses are involved in low-tech manufacturing and less knowledge-intensive services. SME productivity is held back by Latvia's low investment in R&D, as reflected by its consistently low score in the European Innovation Scoreboard (see Annex 11). Latvian SMEs trail their counterparts on basic level of digital intensity, ranking 23rd, with 14% of SMEs selling online compared to 18% in the EU. While the need to accelerate the green transition has become more pressing following Russia's invasion of Ukraine, only 15% of SMEs indicate that they have a specific strategy in place to reduce their carbon footprint and become climate neutral, with 63% of SMEs offering neither green products nor services (versus an EU average of 54%).

Industry's share in the economy has increased. It went up from 15.2% of GDP in 2019 to 17.9 in 2023. This is still below the EU average (20.6%). The manufacturing sector is mainly behind this performance, benefitting also from COVID-19 support. The wood industry, which exports 80% of its production and accounts for 20% of the country's exports ([101]), benefitted from high external demand and high prices.

Latvian businesses suffer from late payments, but the situation has improved. The gap between the terms offered to businesses and actual payment is one of the largest in the EU.

([98]) IMF, Article IV Latvia, 2023.

([99]) Latvia's Productivity Report 2022.

([100])OECD International Direct Investment Statistics 2022., 2023.

([101])Central Statistical Bureau of Latvia.

On average, there is a gap of 16.2 days for B2B payments, above the EU average and one of the highest in the EU. The gap for payments from the public sector has improved significantly and is now 12 days, the second best in the EU. Overall performance is still far from that in 2019, when the average gap was only 2 days and 4 days respectively. As the inflation rate has come down significantly, the improvement in late payments helps put Latvian business on a firmer footing.

While improvements have been made, high barriers to finance remain a challenge for SMEs. In the EIF SME Access to Finance Index, the country improved from 26th place in 2020 to 16th in 2022. Latvia's improved ranking in 2022 compared to 2021 can largely be attributed to the equity side. However, its performance on the loan side, arguably more important for SMEs, has deteriorated. The withdrawal of COVID-19 support has dramatically reduced the share of SMEs benefitting from grants and subsidised loans. Latvia ranks second in the share of finance-constrained firms in the EU ([102]). Factors that explain Latvia's poor access to finance include persistently high interest rates and high collateral costs ([103]).

Skills shortages are an important constraint to long-term growth. Firms in the industry sector report below-average shortages in labour compared to other EU Member States (17% vs 23%). Nevertheless, according to the 2023 EIB Investment Survey, 91% of Latvian firms cite the lack of availability of skilled staff as a barrier to investment. This is the biggest barrier to investment reported by Latvian companies and well above the EU average (81%). Latvia imposes prior checks on 45 qualifications for temporary and occasional services compared to its Baltic neighbours (Estonia 5; Lithuania 11) ([104]). Despite making improvements, the regulatory restrictiveness for civil engineers and patent and trademark agents remains higher than the EU average ([105]). This increases the administrative burden for professionals and reduces market flexibility.

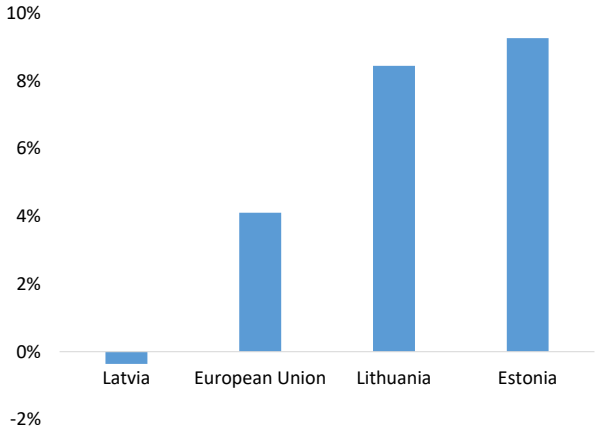
([102])EIB Investment Survey 2023.

([103])IMF 2022.

([104])SMET Report 2021 – 2022.

([105])Communication on updating the reform recommendations for regulation in professional services, COM(2021)385.

Graph A12.2: **Average net private investment as a % of GDP, 2019-23**



Source: AMECO

Improving the business environment remains key to boosting investment. Total investment as a percentage of GDP has been hovering just above 20% since 2017, accounting for 21.8% in 2022 (compared to 27.5% in Estonia and 21.4% in Lithuania). Government investment has been well above the EU average, accounting for almost one-fifth of total investment in the economy. Net levels of public investment are equal to 1.1% of GDP over the past 5 years compared to 0.45% in the EU. However, levels of net private investment have consistently remained one of the lowest in the EU, amounting to -0.4% of GDP, compared to an EU average of 3.8% over the past 5 years (see graph A12.2). Although it has been increasing, private investment is still lower than before the 2007-2008 financial crisis. Results from the 2023 EIB Investment Survey suggest that private investment is affected by high uncertainty, the availability of skilled staff and high energy costs. In 2023, 77% of Latvian firms perceived business regulations to be a long-term obstacle to investment, much higher than their Baltic neighbours (Estonia 46%; Lithuania, 52%) and one of the highest percentages in the EU. Only 39% of surveyed investors are confident that their investments are protected by law and courts in Latvia (54% being the EU average). Frequent changes in legislation and the quality of the law-making process are the main reasons for concern for Latvian investors.

Latvia is well integrated into the Single Market, with its average trade total with other EU countries accounting for more than half of its GDP in 2022. Transposition and conformity deficits are in line with EU averages.

On public procurement, the country is an average performer overall, with 28% of contracts awarded after receiving only single bids in 2023. This constitutes a significant decrease compared with 2022 (37%). Latvia is also among the 17 Member States that became part of the unitary patent system from the outset in June 2023. The system enables simple patent protection in Europe, with a single procedure for the registration of patents and centralised litigation. Furthermore, Latvia solved all the cases (6) it handled as lead centre, above EU average 88% (see Table A12.1), with very good scores on handling time in 2023. The Single Market Scoreboard shows that the burden of government regulation and administrative requirements has increased by almost 30% since 2018.

Latvia has advanced to the preliminary stage of technical implementation of the 'once-only' technical system (OOTS) ([106]). As part of the Single Digital Gateway Regulation ([107]), the system will enable the automated cross-border exchange of evidence between competent authorities, improving online access to information, administrative procedures and assistance within the EU. The onboarding of Latvian competent authorities is crucial for the system to function smoothly and to reduce administrative burden.

([106])Implementing Regulation (EU) 2022/1463.

([107])Regulation (EU) 2018/1724.

Table A12.1:**Industry and the Single Market**

Latvia							
POLICY AREA	**INDICATOR NAME**	**2019**	**2020**	**2021**	**2022**	**2023**	**EU27 average***
HEADLINE INDICATORS							
Economic Structure	Net Private investment, level of private capital stock, net of depreciation, % GDP[1]	-0,7	-1,3	-0,3	-0,5	1,0	**3,8**
	Net Public investment, level of public capital stock, net of depreciation, % GDP[1]	1,0	1,7	1,5	0,5	1,0	**1,2**
	Real labour productivity per person in industry (% yoy)[2]	-0,8	7,1	7,4	-1,9	-2,7	**-1,24**
Cost competitiveness	Nominal unit labour cost in industry (% yoy)[2]	8,7	-4,4	-0,2	13,8	15,8	**9,83**
SINGLE MARKET							
Single Market integration	EU Trade integration, % (Average intra-EU imports + average intra EU exports)/GDP[2]	42,1	42,2	46,8	53,6	46,8	**42,9**
Compliance	Transposition deficit, % of all directives not transposed[3]	0,3	0,8	2	1,2	0,5	**0,7**
	Conformity deficit, % of all directives transposed incorrectly[3]	0,8	1	1	0,8	0,4	**1,1**
	SOLVIT, % resolution rate per country[3]	100,0	100,0	100,0	100,0	100,0	**88,3**
	Number of pending infringement proceedings[3]	13	17	22	17	10	**25,9**
Restrictions	EEA Services Trade Restrictiveness Index[4]	0,05	0,05	0,04	0,04	0,04	**0,05**
Public procurement	Single bids, % of total contractors[3]	32	25	26	37	28	**28,6**
	Direct Awards, %[3]	8	8	11	8	8	**8,1**
ECONOMIC STRUCTURE							
Shortages	Material Shortage (industry), firms facing constraints, %[5]	7,3	7,8	16,1	22,9	12,9	**17,2**
	Labour Shortage using survey data (industry), firms facing constraints, %[5]	25,9	12,1	21,3	22,7	17,3	**23,3**
	Vacancy rate, % of vacant posts to all available ones (vacant + occupied)[2]	3,2	2,0	2,7	2,7	2,4	**2,5**
Strategic dependencies	Concentration in selected raw materials, Import concentration index based on a basket of critical raw materials[6]	0,17	0,16	0,16	0,17	0,17	**0,22**
	Installed renewables electricity capacity, % of total electricity produced[2]	0,6	0,6	0,6	0,6		**50**
BUSINESS ENVIRONMENT - SMEs							
Investment obstacles	Impact of regulation on long-term investment, % of firms reporting business regulation as major obstacle[7]	43,4	34,7	50,3	25,0	40,0	**22,2**
Business demography	Bankruptcies, Index (2015=100)[2]	70,5	44,9	30,5	37,4	30,0	**105,6**
	Business registrations, Index (2015=100)[2]	85,4	72,5	75,6	72,9	72,2	**120,2**
Late payments	Payment gap - corporates B2B, difference in days between offered and actual payment[8]	-	16	11	16	16	**15**
	Payment gap - public sector, difference in days between offered and actual payment[8]	-	18	9	13	12	**16**
	Share of SMEs experiencing late payments in past 6 months, %[9]	56,5	36,5	36,5	38,1	50,6	**48,7**
Access to finance	EIF Access to finance index - Loan, Composite: SME external financing over last 6 months, index values between 0 and 1[10]	0,39	0,17	0,40	0,26	-	**0,49**
	EIF Access to finance index - Equity, Composite: VC/GDP, IPO/GDP, SMEs using equity, index values between 0 and 1[10]	0,16	0,14	0,14	0,26	-	**0,17**

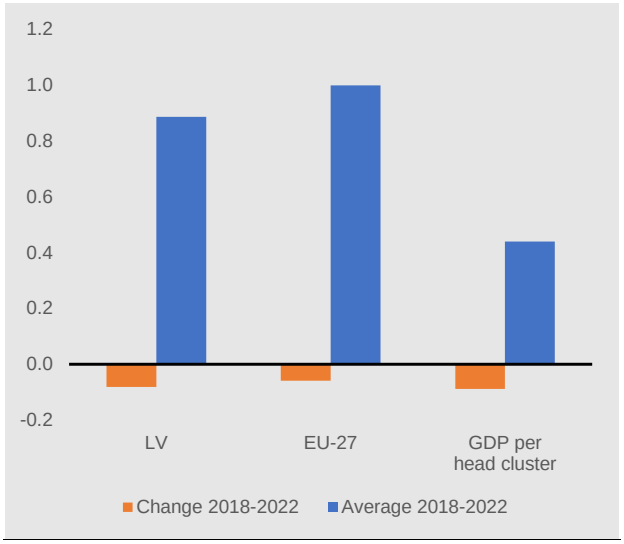
Source: (1) AMECO, (2) Eurostat, (3) Single Market Scoreboard, (4) OECD, (5) ECFIN BCS, (6) COMEXT and Commission calculations, (7) EIB Investment Survey, (8) Intrum Payment Report, (9) SAFE survey, (10) EIF SME Access to Finance Index.
* Own Commission calculations for the EU27 average

Latvia's public administration is essential for the economy's competitiveness by, in particular, shaping the conditions for the twin transitions and creating a favourable business environment. The perception of government effectiveness is below the EU average and shows a downward trend (Graph A13.1). To address systemic challenges, Latvia adopted a modernisation plan for public administration for 2023-2027. It includes measures for better regulation, the centralisation and standardisation of supporting functions, support for innovation and digital transformation. The Innovation Lab ([108]) in the State Chancellery has promoted innovative approaches to improve the quality of critical public services ([109]). The internal control system, including the internal audit and risk management functions, became mandatory for local government bodies in 2023 ([110]).

Latvia's civil service has a good education profile. The share of public administration employees with higher education and their participation rate in adult learning indicate a relatively high-skilled workforce. Moreover, the public administration workforce in Latvia is among the five youngest in the EU. While gender parity in senior civil service positions slightly deteriorated in 2023, it remains well above the EU average (Table A13.1).

Latvia's public administration performs well in digitalisation. The overall score for e-government ranged from 80.2-84.7 in 2021-2023, which is above the EU average of 75.8. In 2023, in line with Latvia's national reform programme, the government has developed a single public administration web platform. The websites of 119 public organisations share the same technological and visual whole-of-government approach.

Graph A13.1: **Government effectiveness**



Average value over 2018-2022 and change over 2018-2022. The GDP per head bar shows the mean value of the government effectiveness indicator for the group of EU countries belonging to the same GDP per head cluster as Latvia (EU countries are ranked in terms of their GDP per head and grouped into three equally sized clusters).
Source: Worldwide Governance Indicators.

Latvia has taken measures to strengthen its policymaking through better coordination and use of evidence ([111]). This includes the creation of the Analytical Service at the State Chancellery in March 2024. However, the country faces challenges in systematically generating and using evidence for policy design and assessment. The Cross-Sectoral Coordination Department provides a central manual on policymaking, although there is neither specific methodological guidance on how to use evidence nor a monitoring mechanism to assess whether the manual is followed. The *Unified Portal for the Development and Agreement of Draft Legal Acts* offers an interactive and open platform for stakeholders to send feedback and to monitor the status of government policy proposals. Moreover, the amended Law on Local Government brought in several mechanisms to foster the involvement of civil society in local decision-making.

In providing open government data, Latvia performs close to the EU average. In October 2023, the Cabinet of Ministers approved the Data Distribution and Management Platform Regulations. This sets out the procedures to run the Data Distribution and Management Platform

([108]) https://www.mk.gov.lv/lv/jaunums/valsts-kancelejas-inovacijas-laboratorija-uzlabos-sabiedribai-nozimigu-pakalpojumu-kvalitati (accessed 23/01/2024).

([109]) Inovācijas sprintu konkursa pieteikumi atklāj valsts pārvaldē aktuālo problēmu daudzveidību | Ministru kabinets (mk.gov.lv) (accessed on 23/01/2024).

([110]) The law on internal audit was approved in 2012 and is now outdated as global internal audit standards promulgated by the Institute of Internal Auditors (Home | The Institute of Internal Auditors | The IIA) have been updated three times since then. The new global internal audit standard was released on 9 January 2024 and will become effective on 9 January 2025 (2024 Global Internal Audit Standards).

([111]) With the creation of the Strategic Management Thematic Committee.

Table A13.1:**Public administration indicators**

LV	Indicator ([1])	2019	2020	2021	2022	2023	EU-27([2])
E-government and open government data							
1	Share of internet users within the last year that used a public authority website or app	n/a	n/a	n/a	77.0	78.9	75.0
2	E-government benchmark overall score ([3])	n/a	81.7	80.2	81.7	84.7	75.8
3	Open data and portal maturity index	0.7	0.8	0.8	0.6	0.8	0.8
Educational attainment level, adult learning, gender parity and ageing							
4	Share of public administration employees with higher education (levels 5-8, %)	71.9	73.0	75.2 (b)	76.8	77.5	52.9
5	Participation rate of public administration employees in adult learning (%)	15.8	11.8	18.3 (b)	20.1	23.6	17.9
6	Gender parity in senior civil service positions ([4])	3.4	8.2	10.0	3.2	4.6	9.2
7	Ratio of 25-49 to 50-64 year olds in NACE sector O	2.7	2.5	2.4 (b)	2.6	2.5	1.5
Public financial management							
8	Medium-term budgetary framework index	0.8	0.9	0.9	0.9	n/a	0.7
9	Strength of fiscal rules index	1.1	1.1	1.1	1.1	n/a	1.4
Evidence-based policy making							
10	Regulatory governance	n/a	n/a	1.79	n/a	n/a	1.7

([1]) High values denote a good performance, except for indicator # 6. ([2]) 2023 value. If unavailable, the latest value available is shown. ([3]) Measures the user centricity (including for cross-border services) and transparency of digital public services as well as the existence of key enablers for the provision of those services. ([4]) Defined as the absolute value of the difference between the percentage of men and women in senior civil service positions.
Flags: (b) break in time series; (d) definition differs; (u) low reliability.
Source: E-government activities of individuals via websites, Eurostat (# 1); E-government benchmark report (# 2); Open data maturity report (# 3); Labour Force Survey, Eurostat (# 4, 5, 7); European Institute for Gender Equality (# 6); Fiscal Governance Database (# 8, 9); OECD Indicators of Regulatory Policy and Governance (# 10).

(DAGR), which aims to facilitate identifying and reusing public data sets ([112]). Moreover, the fifth national Open Government Partnership Plan (2022-2025) ([113]) aims to strengthen public participation in decision-making and make national and local authorities more transparent.

The justice system works efficiently. The estimated time needed to resolve litigious civil and commercial cases at first instance was 209 days in 2022, a slight decrease from 216 days in 2021. The estimated time needed to resolve administrative cases at first instance decreased from 256 days in 2021 to 200 days in 2022. The proportion of pending administrative cases remained one of the lowest in the EU. The quality of the justice system is good overall and is being improved. The level of digitalisation of courts and the prosecution services continues to be high. On judicial independence, no systemic deficiencies have been reported ([114]).

There is room for strengthening Latvia's independent fiscal institution (IFI), to help address fiscal challenges. The Fiscal Discipline Council of the Republic of Latvia focuses mostly on endorsing the macroeconomic forecast and monitoring compliance with fiscal rules. With only three full-time staff members, it is a relatively small IFI. It could therefore face challenges if it were to pick up new tasks such as costings of planned policy measures. The Council has some media presence, but there is scope for increasing outreach activities and hence, its role in national fiscal debates.

([112])As of November 2023, 818 data sets are available in the data portal, compared to 623 in 2022 and 472 in 2021. Source: Open data portal.

([113])The plan is available at: https://www.mk.gov.lv/lv/atverta-parvaldiba (accessed 23/11/2023).

([114])For more details, see the 2024 EU Justice Scoreboard and the 2024 Rule of Law Report (forthcoming).

ANNEX 14: EMPLOYMENT, SKILLS AND SOCIAL POLICY CHALLENGES IN LIGHT OF THE EUROPEAN PILLAR OF SOCIAL RIGHTS

The European Pillar of Social Rights provides the compass for upward convergence towards better working and living conditions in the EU. This Annex provides an overview of Latvia's progress in implementing the Pillar's 20 principles and the EU headline and national targets for 2030 on employment, skills and poverty reduction.

Table A14.1:**Social Scoreboard for Latvia**

Poliy area	Headline indicator	
Equal opportunities and access to the labour market	Adult participation in learning (during the last 12 months, excl. guided on the job training, % of the population aged 25-64, 2022)	34.1
	Early leavers from education and training (% of the population aged 18-24, 2023)	7.7
	Share of individuals who have basic or above basic overall digital skills (% of the population aged 16-74, 2023)	45.3
	Young people not in employment, education or training (% of the population aged 15-29, 2023)	10
	Gender employment gap (percentage points, population aged 20-64, 2023)	3.1
	Income quintile ratio (S80/S20, 2022)	6.3
Dynamic labour markets and fair working conditions	Employment rate (% of the population aged 20-64, 2023)	77.5
	Unemployment rate (% of the active population aged 15-74, 2023)	6.5
	Long term unemployment (% of the active population aged 15-74, 2023)	1.8
	Gross disposable household income (GDHI) per capita growth (index, 2008=100, 2022)	123.6
Social protection and inclusion	At risk of poverty or social exclusion (AROPE) rate (% of the total population, 2022)	26
	At risk of poverty or social exclusion (AROPE) rate for children (% of the population aged 0-17, 2022)	19.8
	Impact of social transfers (other than pensions) on poverty reduction (% reduction of AROP, 2022)	25
	Disability employment gap (percentage points, population aged 20-64, 2022)	20.8
	Housing cost overburden (% of the total population, 2022)	5.4
	Children aged less than 3 years in formal childcare (% of the under 3-years-old population, 2022)	32.7
	Self-reported unmet need for medical care (% of the population aged 16+, 2022)	5.4

Critical situation | To watch | Weak but improving | Good but to monitor | On average | Better than average | Best performers

Source: Update of 25 April 2024. Member States are categorised based on the Social Scoreboard according to a methodology agreed with the EMCO and SPC Committees. Please consult the Annex of the Joint Employment Report 2024 for details on methodology.

The Latvian labour market continues to perform well. The employment rate (20–64 years of age) rose to 77.5% in 2023 (EU: 75.3%). The contraction of the economy is set to slightly ease labour market tightness, as evidenced by the recent fall in the number of job vacancies. The gender employment gap is one of the lowest in the EU (3.1% in 2023, EU: 10.2%), and the disability employment gap is also below the EU average (20.8% vs 21.4%), despite increasing from 2021. In 2023, the unemployment rate stood at 6.5% (EU average 6.1%), however significant regional discrepancies persist ([115]). Despite improvements, the youth unemployment rate was 12.3% in 2023 (EU: 14.5%) and the unemployment rate of persons with disabilities was 7.1% in 2022 (EU: 6.3%).

Active labour market policies (ALMPs) promote quick reintegration, but activation support is still low. The European Social Fund Plus (ESF+) will invest EUR 55 million in the activation of the most vulnerable unemployed persons, jobseekers and people from at-risk groups to find work. This will help Latvia achieve its national target of having at least 80% of 20–64-year-olds in employment by 2030 and will limit the impact of the persistently high labour shortages. The rate of in-work poverty increased from 8.2% in 2020 to 9.2% in 2022, partly due to high inflation. Although it was raised from EUR 620 in 2023 to EUR 700 in January 2024, Latvia still had one of the lowest minimum wages in the EU in 2023. Collective bargaining coverage and trade union density in Latvia are relatively low and decreasing ([116]).

Labour and skills shortages are increasing. Also, the decline in the working-age population, caused by an ageing population, continues to be a major challenge in Latvia. The general vacancy rate for all activities increased from 2.2 in 2020 to 2.7 in 2023In 2023, labour shortages resulted in more than 3 100 unfilled vacancies in science, technology, engineering and mathematics (STEM), the sector with the greatest shortages, which is also highly relevant to the green and digital transition ([117]). The combination of demographic challenges and skills and labour shortages also undermines Latvia's potential to increase its economic competitiveness. By skill level, the greatest shortages are in medium-skilled occupations, accounting for 62.7% of all vacancies. The macro-economic skills mismatch was higher than the EU average for the 15-29 age

([115])From 10.5% in Latgale to 5.6% in Vidzeme, 5.1% in Zemgale and 4.2% in Riga.

([116])Collective bargaining coverage was 27.1% in 2018; trade union density was11.6%.

([117])Darbaspēka pieprasījuma un piedāvājuma sabalansētība - EM

group in 2022 and has been increasing since 2019.

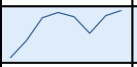
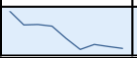
Upskilling and reskilling are key to addressing increasing labour and skills shortages. The share of high-skilled workers is expected to rise from 42% in 2022 (EU: 37%) to 49% by 2035 (EU: 46%). By 2030, the most significant shortages, across all skills levels, are expected in engineering, manufacturing and construction (about 48 000 jobs) and natural sciences, mathematics and IT (7 000 jobs) ([118]). Shortages are also expected in healthcare and social care (3 600). While recent reforms in vocational education have made vocational education and training more flexible and attractive, continued efforts are needed to modernise and improve the training offer. The piloting of skills funds and individual learning accounts in the context of the recovery and resilience plan will help address future skills shortages. The continued development of targeted and evidence-based adult learning will support Latvia in getting closer to its national target of at least 60% of adults in education or training per year by 2030.

There are gaps in the adequacy of social assistance and old-age pensions. This creates challenges for Latvia to reach its 2030 target of 95 000 fewer people at risk of poverty or social exclusion (AROPE). The AROPE rate (26.0% in 2022) and income inequality (S80/S20 at 6.33 in 2022) both remain above the EU average (21.6% and 4.74). While consumer price inflation fell from nearly 20% in 2022 to 9.1% in 2023, it is still putting additional pressure on vulnerable households.

Social transfers have a limited impact on poverty reduction ([119]). In 2022, the level of the minimum income adequacy stood at 51.3% of the poverty threshold, below the EU average of 58.9% ([120]). While reform of the minimum income in 2023 is a first step, the Latvian Constitutional Court found that the level of the guaranteed minimum income is still inadequate. Likewise, despite recent pension reforms, old-age poverty (AROP) remains one of the highest in the EU (40.5% vs 17.3% in the EU in 2022), with a big gender gap ([121]). The aggregate replacement ratio remains significantly below the EU average. While Latvia will gradually reintroduce from 2024 on pension supplements for those who retired after 2012, this is expected to have a limited impact on reducing old-age poverty ([122]). Additionally, the funding allocated under the ESF+ for material and food support risks being insufficient.

Unmet medical needs and inadequate long-term care (LTC) are persistent problems. The share of the population aged 65 and over is expected to increase from 20.9% in 2022 to 30.1% in 2050, while funding for LTC (0.3% of GDP in 2021) is well below the EU average of 1.7%. Only 14.6% of people aged 65 and over in need of LTC used home care services in 2019, two times less than in the EU. The affordability of LTC is also an issue, with out-of-pocket costs representing 223% of the median income of people with severe needs.

Table A14.2:**Situation of Latvia on 2030 employment, skills and poverty reduction targets**

Indicators	Latest data	Trend (2016-2023)	2030 target	EU target
Employment (%)	77.5 (2023)		80	78
Adult learning[1] (%)	34.1 (2022)		60	60
Poverty reduction[2] (thousands)	-30 2023		-95	-15,000

(1) Adult Education Survey, adults in learning in the past 12 months, special extraction excl. guided on-the-job training.
(2) Change in the number of persons at risk of poverty or social exclusion (AROPE), reference year 2019.
Source: Eurostat, DG EMPL.

The provision of social services is inadequate. The provision of social services remains fragmented at the municipality level, which limits the coverage and the quality of support provided. Proposed legislative amendments, currently in negotiation, for the provision of minimum services ([123]) in each municipality from 2024 to 2029 and their timely

([118])Darbaspēka pieprasījuma un piedāvājuma sabalansētība - EM.

([119])Impact (excluding pensions) at 25% in 2022 (EU: 35%).

([120])Source: SILC 2022, based on income year 2021.

([121])The AROP (at-risk-of-poverty) rate for older women was 45.6% in 2022 vs 30.2 for men.

([122])Estimations performed by the European Commission, Joint Research Centre, based on the EUROMOD model, I6.0+".

([123])These services include home care, group homes, day care centres and family assistants.

implementation would help solve this problem. Deinstitutionalisation efforts, launched with the help of EU funding for 2014-2020, have provided more people with mental disabilities access to community-based services (up from 20% in 2012 to 32% in 2021), but further efforts are needed to reach the national 45% target by 2027.

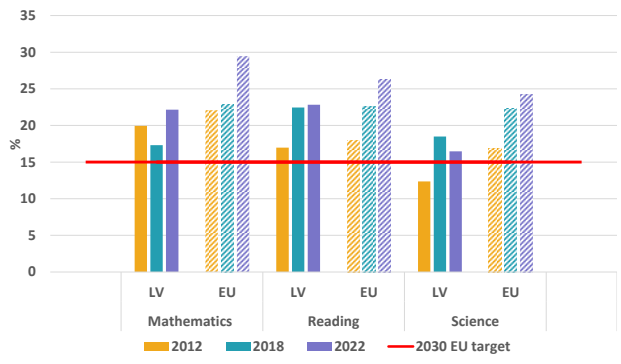
Homelessness and the poor quality of social housing remain key challenges. The social housing stock is very limited and there is no established definition of homelessness in the national legal framework, nor is there a comprehensive data collection system, which limits effective policy planning in this area. The lack of housing is also a result of the local authorities' struggles to host people fleeing Russia's war of aggression against Ukraine, which puts in question the ability of municipalities to house the projected 12 000 new arrivals in 2024. The recently adopted 2023-2027 housing affordability guidelines aim to create a strategy to improve the availability of housing for different income groups. An investment of EUR 51.8 million from the European Regional Development Fund in social housing will support the construction or renovation of at least 1 500 dwellings by 2029. An investment of EUR 42.9 million from the Recovery and Resilience Fund will support the construction of almost 500 low-rent dwellings by 2026.

This Annex outlines the main challenges of Latvia's education and training system based on the 2023 Education and Training Monitor and the 2022 OECD Programme for International Student Assessment (PISA) results.

More than 20% of 15-year-olds have insufficient basic skills in mathematics and reading, which risks harming Latvia's future economic potential. The proportion of 15-year-olds underachieving in reading, mathematics and science, as measured by the Programme for International Student Assessment (PISA) in 2022, has increased since 2012, while remaining consistently below the EU average (Table A15.1 and Graph A15.1). Latvia is among the top-performing EU countries in science. However, the share of top-performing students in all three domains is below the EU average and has been for the past decade, which may harm Latvia's innovation capacity going forward.

Socio-economic status has a comparatively limited influence on educational performance. In 2022, the socio-economic gap in underachievement in mathematics was equal to 28 pps, 9.1 pps lower than the EU average. Although the underachievement rate in students from the bottom quarter of the distribution increased by 9.6 pps compared with 2018, it remained well below the EU average in 2022, at 36.9% vs 48.0% at EU level.

Graph A15.1: **Underachievement rates by field, PISA 2012, 2018 and 2022**



Source: OECD (2023).

The proportion of early leavers from education and training (ELET) is below the EU average and shows a marked reduction in gender disparities over the years. In 2023, the ELET rate among 18-24-year-olds was at 7.7%, up from 6.7% the previous year but still below both the EU average of 9.5% and the EU-level target of less than 9% by 2030. Men are almost twice as likely as women to be early leavers from education and training (10% as against 5.5%). However, over the years, the male ELET rate has been falling steadily, progressively reducing the gender gap, from 8.4 pps in 2010 to 4.3 pps in 2023 (EU average 3.6 pps).

Teacher shortages are increasingly being felt, but renewing the teaching force remains a challenge. Despite substantial improvements over the years, low statutory pay ([124]) and high workload contribute to making teaching relatively unattractive. The proportion of students in schools whose principals say that the capacity to provide instruction is hindered by the lack of teaching staff has risen sharply over the years, from 21.5% in 2015 to 67.7% in 2022, well above the EU average of 53.4% (PISA 2022). As a high share (36.9%) of Latvian teachers is approaching retirement age, the lack of new teachers entering the profession may pose a threat to ensuring adequate teacher availability within the next decade.

Regional inequalities in access to quality education are a challenge. Access to quality education is dependent on place of residence, with larger urban schools performing better than smaller, rural ones.

The government is pursuing its efforts to consolidate the school network. More than EUR 30 million is available for this purpose through the EU Recovery and Resilience Facility. The government is encouraging municipalities to build high-quality basic education schools outside big cities by investing in infrastructure and learning technologies. In addition, the Ministry of Education and Science is planning a new financing model for schools which it hopes will lead to faster consolidation as well as better wages for teachers. Under the new model, the state would no longer allocate funds to municipalities based on the number of pupils in the entire municipality, but would allocate funding to each school separately,

([124])The average salaries of teachers in Latvia are below GDP per capita at all educational levels except for general upper secondary education (European Commission, European Education and Culture Executive Agency 2022).

Table A15.1:**EU-level targets and other contextual indicators under the European Education Area strategic framework**

				2012		2018		2023	
Indicator			Target	Latvia	EU-27	Latvia	EU-27	Latvia	EU-27
[1]Participation in early childhood education (age 3+)			96%	91.3% [2013]	91.8% [2013]	94.1%	92.2%	94.5% [2021]	92.5% [2021,d]
[2]Low-achieving 15-year-olds in:		Reading	< 15%	17.0%	18.0%	22.4%	22.5%	22.8% [2022]	26.2% [2022]
		Mathematics	< 15%	19.9%	22.1%	17.3%	22.9%	22.2% [2022]	29.5% [2022]
		Science	< 15%	12.4%	16.8%	18.5%	22.3%	16.5% [2022]	24.2% [2022]
Early leavers from education and training (age 18-24)	[3]Total		< 9 %	10.6%	12.6%	8.3%	10.5%	7.7%	9.5%
	[3] By gender	Men		14.7%	14.5%	11.4%	12.1%	10.0%	11.3%
		Women		6.3%	10.6%	5.0%	8.7%	5.5%	7.7%
	[4] By degree of urbanisation	Cities		7.5% [b]	11.2%	: [u]	9.4%	6.0% [u]	8.6%
		Rural areas		13.9% [b]	14.0%	11.3%	11.0%	9.5%	9.9%
	[5] By country of birth	Native		10.8%	11.3%	8.4%	9.2%	7.9%	8.2%
		EU-born		: [u]	26.2%	: [u]	22.4%	: [u]	21.0%
		Non EU-born		: [u]	30.1%	: [u]	23.0%	: [u]	21.6%
[6]Socio-economic gap (percentage points)				25.6	:	19.8	29.5	28.0 [2022]	37.2 [2022]
[7]Exposure of VET graduates to work-based learning			≥ 60% (2025)	:	:	:	:	:	64.5%
Tertiary educational attainment (age 25-34)	[8]Total		45%	38.7%	34.1%	41.6%	38.7%	45.1%	43.1%
	[8] By gender	Men		26.2%	29.1%	30.0%	33.3%	33.6%	37.6%
		Women		51.2%	39.2%	53.8%	44.2%	57.3%	48.8%
	[9] By degree of urbanisation	Cities		45.0% [b]	43.5%	48.8%	49.0%	53.8%	53.3%
		Rural areas		31.3% [b]	24.8%	30.3%	27.7%	33.6%	31.7%
	[10] By country of birth	Native		38.8%	35.4%	41.6%	39.7%	44.0%	44.2%
		EU-born		: [u]	29.3%	: [u]	36.7%	: [u]	40.2%
		Non EU-born		32.0%	24.2%	41.6%	31.0%	64.0%	37.1%
[11]Participation in adult learning (age 25-64)			≥ 47% (2025)	:	:	39.0% [2016]	37.4% [2016]	34.1% [2022]	39.5% [2022]
[12]Share of school teachers (ISCED 1-3) who are 55 years or over				24.6% [2013]	22.7% [2013]	29.0%	23.8%	36.9% [2021]	24.5% [2021]

Notes: b = break in time series; d = definition differs; e = estimated; p = provisional; u = low reliability; : = data not available.
Source: 1,3,4,5,7,8,9,10,12=Eurostat; 11= Eurostat, Adult Education Survey; 2,6=OECD, PISA.

effectively curtailing the ability of municipalities to redistribute funding in favour of small schools.

Participation in early childhood education and care (ECEC) is almost universal for children aged between 3 and the start of compulsory education. In 2022, 95.5% of 3-6-year-olds were enrolled in ECEC, above the EU average of 93.1%, and not far below the EU-level target of 96% by 2030. The share of children under 3 enrolled in formal childcare is growing but remains below the EU average. (see Annex 14).

The proportion of young adults with a tertiary educational qualification is high and growing, but the share of science, technology, engineering and mathematics (STEM) graduates remains low, particularly among women. In 2023, 45.1% of Latvian 25-34-year-olds had a tertiary educational qualification, above both the EU average of 43.1% and the EU-level target of 45% by 2030. But while the tertiary educational attainment rate for young women (57.3%) is significantly above the EU average of 48.8%, the rate for men is slightly below (33.6% vs 37.6%). The resulting gender gap is among the widest in the EU. The proportion of tertiary students pursuing a degree in STEM is below the EU average. In 2021 25.9% of new entrants into tertiary education were enrolled in STEM, fewer than in 2016 (27.6%) and below the EU average of 28.9%. By contrast, the proportion of new entrants in ICT grew to 8.3% in 2021 (from 7.1% in 2016) and remains well above the EU average of 4.9%.

The low proportion of STEM graduates and the unattractiveness of academic careers may limit innovation capacity. The lack of researchers and PhD graduates ([125]) is one of the main barriers to strengthening the Latvian R&I system, especially in the private sector. The Latvian recovery and resilience plan introduces various reforms of the higher education system that aim to align university courses with industrial needs and to increase the attractiveness of

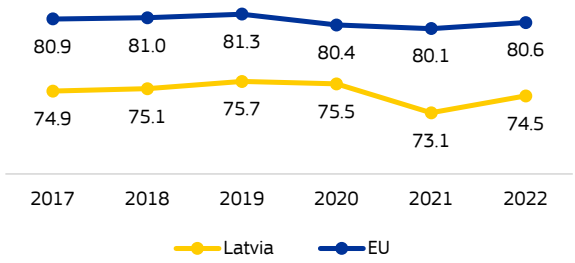
([125])In 2021, there were 0.3 PhD graduates per 1 000 inhabitants aged 25-34 (EU average: 1.3), down from 0.5 in 2015. Eurostat: educ_uoe_grad06.

research careers in a bid to increase the country's productivity and innovation potential.

A healthy population and an effective, accessible and resilient health system are prerequisites for a sustainable economy and society. This Annex provides a snapshot of population health and the health system in Latvia.

Life expectancy at birth in Latvia was among the lowest in the EU in 2022. There was a significant drop in life expectancy between 2020 and 2021 due to the COVID-19 pandemic. As mortality from COVID-19 declined in 2022 compared to 2021 ([126]), life expectancy rebounded, though not to pre-pandemic levels. Latvia's mortality rate from treatable causes was among the highest in the EU in 2021. At the same time, mortality in the economically active age groups, both as a share of total mortality and relative to the workforce size, is among the highest in the EU. In 2021, diseases of the circulatory system ('cardiovascular diseases') and cancer were the leading causes of death, followed by COVID-19. Cancer screening rates are low, reflected in relatively high cancer mortality rate compared with the EU average.

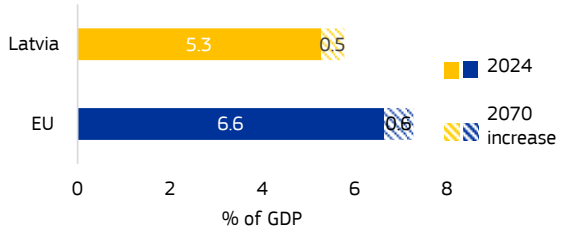
Graph A16.1: **Life expectancy at birth, years**



Source: Eurostat

Health expenditure in Latvia remains among the lowest in the EU and only 69.5% of it was publicly funded in 2021. Spending per capita is below the respective EU averages for outpatient care, inpatient care, disease prevention, pharmaceuticals and medical devices. In 2021, total healthcare spending increased to 9.1% of GDP, up from 7.3% in 2020, but it was still below the EU average of 10.9%. The increase came from additional resources allocated to the health system in response to COVID-19 pandemic. The proportion of total health spending that was publicly funded (69.5%) remained well below the EU average of 81.1%. Provisional data from the OECD suggest that in 2022 total healthcare spending fell back to 8.8% of GDP. Based on the age profile of the population, public expenditure on health is projected to increase by 0.5 percentage points (pps) of GDP by 2070, compared to 0.6 pps for the EU overall (see Graph 16.2 and Annex 21).

Graph A16.2: **Projected increase in public expenditure on healthcare over 2024-2070**



Baseline scenario
Source: European Commission / EPC (2024)

In 2021, spending on prevention in Latvia amounted to 5.1% of total spending on healthcare, compared to 6.0% for the EU overall. Between 2019 and 2021, spending on preventive care in Latvia doubled, closely following the trend across the EU. Proportionally, budget shares for prevention across the EU increased most for emergency response, disease detection and immunisation programmes. In Latvia, spending on immunisation programmes increased by 529% in 2021, making that the biggest single factor behind that year's increase in spending on preventive care.

The health system in Latvia is under-resourced and this limits access to quality and timely care. Low levels of public funding for health results in quotas for provision of healthcare services, high waiting times and high unmet needs. The proportion of the Latvian population reporting unmet needs for medical care in 2022 was among the highest in the EU (5.4% in Latvia compared to an EU average of 2.2%), with lower income groups disproportionally affected. A significant proportion of the population (8%) reported unmet needs for mental healthcare during the pandemic ([127]). Cost

([126])Based on data provided directly by Member States to the European Centre for Disease Prevention and Control, under the European Surveillance System.

([127])Eurofound (2022), Living, working and COVID-19 survey, rounds three and five (spring 2021 and spring 2022). Dublin,

Table A16.1:**Key health indicators**

	2018	2019	2020	2021	2022	EU average (latest year)
Treatable mortality per 100 000 population (mortality avoidable through optimal quality healthcare)	196.4	188.6	185.5	205.0	NA	93.3 (2021)
Cancer mortality per 100 000 population	293.9	292.6	296.5	283.6	NA	235.4 (2021)
Current expenditure on health, % GDP	6.2	6.6	7.3	9.1	NA	10.9 (2021)
Public share of health expenditure, % of current health expenditure	59.9	60.1	63.6	69.5	NA	81.1 (2021)
Spending on prevention, % of current health expenditure	2.6	2.6	3.1	5.1	NA	6.0 (2021)
Available hospital beds per 100 000 population	549	542	529	516	NA	525 (2021)
Doctors per 1 000 population	3.3	3.3	3.3	3.4	NA	4.1 (2021)*
Nurses per 1 000 population	4.4**	4.4**	4.2**	4.2**	NA	7.9 (2021)
Total consumption of antibacterials for systemic use, daily defined dose per 1 000 inhabitants per day ***	13.8	13.9	11.9	11.6	15.0	19.4 (2022)

Note: The EU average is weighted for all indicators except for doctors and nurses per 1 000 population, for which the EU simple average is used. Doctors' density data refer to practising doctors in all countries except Greece, Portugal (licensed to practise) and Slovakia (professionally active). Nurses' density data refer to practising nurses in all countries except Ireland, France, Portugal, Slovakia (professionally active) and Greece (hospital only).

Source: Eurostat Database; except: * OECD, ** Joint Questionnaire on non-monetary healthcare statistics, *** ECDC, **** Council Recommendation on stepping up EU actions to combat antimicrobial resistance in a One Health approach.

and long waiting lists have been reported as the most frequent barriers to accessing mental health services ([128]). Overall, the statutory benefits package for healthcare is relatively limited and the services and goods covered nearly always require user co-payments. Consequently, the share of out-of-pocket spending for healthcare is very high in Latvia (27% in 2021 versus an EU average of 14.5%). The underfunding of the health system also contributes to high levels of avoidable mortality. Latvia's mortality rates from preventable and treatable causes are among the highest in the EU. In 2021, Latvia reported the highest rates in the EU for mortality within 30 days of hospital admission for heart attack and stroke. In recent years, public financing for health has increased and this may have contributed to an observed reduction in out-of-pocket spending for healthcare. This trend is encouraging, but further investment is needed to improve the accessibility and quality of healthcare. For example, a plan to improve the organisation of mental healthcare in 2023-2025 was approved in 2022, but funding to implement the plan has been allocated only from 2024 and is lower than what the plan envisages.

Latvia faces persistent shortages of health professionals, which hinder the provision of healthcare. The number of practising nurses per 1 000 population (4.2 in 2021) is one of the lowest in the EU. The Ministry of Health has estimated that the health sector requires around 4 900 additional nurses. The number of doctors per 1 000 population (3.4 in 2021) is also below the EU average (4.1 in 2021). Working conditions are a significant factor, with low pay acting as a deterrent to entering the profession, particularly for nurses. A significant proportion of doctors (47.7%) and nurses (34.3%) are aged 55 or above, raising concerns about the long-term accessibility of health services. Through its recovery and resilience plan (RRP), Latvia is developing a health workforce strategy and a new pay model for healthcare staff.

EU funds support substantial investments in healthcare in Latvia. Through its RRP, Latvia plans to invest EUR 181.5 million in healthcare. The RRP includes a set of reforms and investments aimed at strengthening the resilience and accessibility of Latvia's health system. Work has progressed, for example, with the adoption of a digital health strategy and recommendations for integrated care, and with the planning of investments in hospital infrastructure. Complementary investments are planned under the cohesion policy funds in 2021-2027. Latvia will invest EUR 184 million in medical equipment, health infrastructure, digitalisation of healthcare and measures to improve the accessibility, effectiveness and resilience of the health system ([129]).

https://www.eurofound.europa.eu/surveys/living-working-and-covid-19-e-survey.

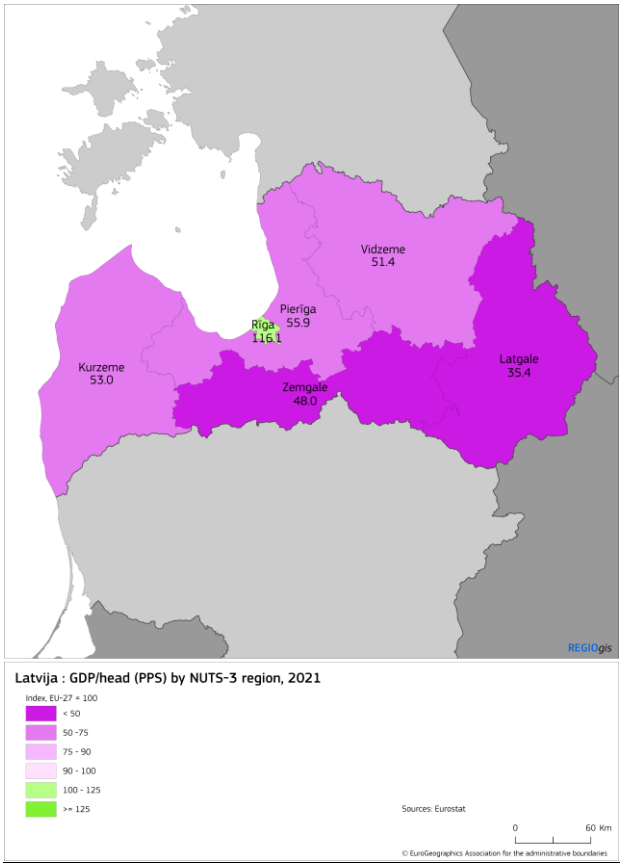
([128])https://europa.eu/eurobarometer/surveys/detail/3032

([129])The EU cohesion policy data reflect the status as of 13 May 2024.

Annex 17 showcases the economic and social regional dynamics in Latvia. It provides an analysis of economic, social and territorial cohesion in the Latvian regions and assesses emerging investment and subnational reform needs to foster economic growth, social development and competitiveness in the country.

Overview of economic and social performance at regional level

Map A17.1: **GDP per capita (in PPS) in Latvia, NUTS 3, 2021**



Source: Eurostat, DG REGIO elaboration

The regional outlook is characterised by significant disparities between the capital Rīga and the rest of the country. In 2021, the GDP per capita (in purchasing power standards (PPS)) of the Rīga-capital was 116% of the EU average, but in the other NUTS 3 regions ranged between 56% in Pierīga and 35% in Latgale in the east of the country (Map A17.1).

There are very large regional differences in GDP growth and productivity, with Latgale lagging behind most. Productivity (measured as gross value added (pps) per worker) is lower than the EU average (100) in all Latvian regions and varies between 41 in Latgale and 89 in Pierīga. Lower productivity feeds into lower income levels in the regions with negative effect on levels of employment, share of people at-risk-of-poverty and other socio-economic indicators. GDP per capita in Pierīga and Rīga grew at an annual rate of 3.5% and 4,1% respectively in 2012-2021, but by only 2.4% in Latgale. Kurzeme and Latgale have a lower average annual GDP growth rate (around 0.5% in 2012-2021 in Latgale e.g. compared to 2.6% in Latvia nationwide and 1.6% in the EU 2013-2022) resulting in increased divergence with the rest of the country and the EU. Importantly, Latgale has the lowest GDP per capita, and it has suffered from the recent complete breakdown of trade relations with neighbouring Russia and Belarus since the start of Russia's war of aggression against Ukraine.

Latvian regions are undergoing rapid depopulation driven by the low birth rate and emigration. In Rīga and Pierīga, there are signs of suburbanisation. Latvia's population decreased by 8.4% in 2013-2021. The population fell by more than 10% since 2013 in 4 regions (Kurzeme, Vidzeme, Zemgale and Latgale). The biggest fall was in Latgale (-18.7%). Rīga's population decreased by 6.7%, whereas the population in the surrounding region of Pierīga, increased by 4.1%, which was the strongest most recent increase.

Significant socio-economic differences between urban and rural areas persist. The unemployment rate, the share of young people neither in employment nor in education or training (NEET), the share of early school leavers were all higher in rural areas than in more urbanised areas (cities, towns and suburbs) in 2021. People living in rural areas also have on average a lower level of educational attainment. Patent applications to the European Patent Office (EPO) per million inhabitants were nearly 10 times higher in Rīga and Pierīga than in the (rural) rest of the country.

Large disparities remain between urban and rural areas in terms of poverty and social exclusion. In 2021, 31.6% (almost 3 percentage points up on 2020) of the rural population was at-risk-of-poverty or social exclusion (AROPE) while the rate was 23.8% in towns and suburbs and 22.4% in cities. The demand for basic food and material assistance in Latvia has significantly increased – 127 000 people in 2022 compared to 87 000 in 2021. In 2023 the number of the aid

Table A17.1:**Selected indicators at regional level in Latvia**

NUTS 3 Region	GDP per capita (PPS)	GDP (mln of PPS)	Productivity (GVA (PPS) per person employed)	Real productivity growth	GDP growth	GDP per head growth	Population growth	Net migration	Transport performance by car	Average excess mortality, 2020-2021
	EU27=100, 2022 (LV); 2021 (regions)	2022 (LV); 2021 (regions)	Index, EU27 = 100, 2022 (LV); 2021 (regions)	Average % change on the preceding year, 2013-2022; 2012-2021 (regions)	Average % change on the preceding year, 2013-2022; 2012-2021 (regions)	Average % change on the preceding year, 2013-2022; 2012-2021 (regions)	Average annual change per 1000 residents, 2013 - 2021	Average annual change per 1000 residents, 2013 - 2021	Share of population in a 120-km radius that can be reached within 1h30 (%); 2021	% compared to average 2015-2019
European Union	100	15905280	100	0.7	1.6	1.4	1.9	2.9	77.2	
Latvija	73	48555	73	2.5	2.6	3.4	-8.4	-3.7	60.2	13.2
Kurzeme	53	4061	59	1.6	0.9	2.3	-13.2	-7.5	39.2	8.8
Latgale	35	2891	41	0.7	0.5	2.4	-18.7	-8.2	49.9	14.3
Rīga	116	23133	82	3.0	3.4	4.1	-6.7	-2.8	75.8	15.8
Pierīga	56	6959	89	4.2	3.7	3.5	4.1	4.5	69.2	12.5
Vidzeme	51	3058	58	4.0	3.6	5.1	-14.5	-8.1	34.9	9.7
Zemgale	48	3548	60	2.8	2.8	3.9	-11.2	-6.2	57.0	13.6

Source: Eurostat, EDGAR database

recipients has slightly decreased, but it still exceeded 100 000. The cost of food and other essentials has also increased considerably.

Regional differences are evident in Latvia's transport systems performance. The efficiency of the road network for a return trip in a single day (measured as share of population accessible within 1h30 by road, from the total population living in 120 km radius (reference year 2021)) is higher in the capital region (75.8%) and in Pierīga (69.2%) than the EU average but lower in the other regions, particularly in Kurzeme (39.2%) and Vidzeme (34.9%). There is a need to step up investments in the country's railway network (as an alternative to road transport) and sustainable urban transport: especially in the electrification and provision of electric trains.

The digital divide between urban and rural areas persists. Recent years have seen a high increase in the uptake of public digital services. 77% of Latvians interacted with public authorities online in 2021, which was significantly higher than the EU average of 58%. Nevertheless, insufficient connectivity in rural areas is hampering the integration of digital technologies. In rural areas, fixed very high-capacity network coverage reached 75% in 2021, an increase of only 1 pps compared to the previous year. Due to low incomes and low population density, commercial incentives for private operators to connect premises in rural areas are lacking. More public funding is needed for the deployment of last mile infrastructure in order to overcome these obstacles and to achieve nationwide speeds of at least 100 Mbit by 2027.

Investment and subnational reform needs ahead

Skills shortages and mismatches require more attention. Investing in upskilling, reskilling and job-to-job transitions, improving the quality of education, in particular in general and vocational education, and adult learning remains an important investment priority in the years to come. This is a particular issue for social services and healthcare providers as there is a lack of qualified professionals due to current labour shortages and an increasing demand for these services. Generally speaking, the situation is in fact so serious that Latvia risks falling into a talent development trap.

The capacity for businesses, especially in the lagging regions to innovate and increase productivity remains weak. This is true for technology transfer capacity, public-private collaboration and the share of innovative SMEs, as well as the weak innovation enablers and participation in European research and innovation networks, platforms and programmes. Strengthening the quality and efficiency of the innovation eco-system is necessary to ensure a full uptake of the additional investments contributing to innovation diffusion among all eco-system stakeholders.

Latvia needs to accelerate support to achieve its green transition. It would be beneficial to focus on energy efficiency measures, especially in housing as well as the further deployment of renewable energy installations and facilitating investments in net-zero technologies manufacturing. The renovation of apartment buildings through financial instruments to make

these buildings more energy efficient has worked well and should be continued as planned. But there is also a need to accelerate investments in the country's sustainable urban transport and railway network, especially in the electrification and provision of electric trains, to overcome – in a sustainable way – the huge regional disparities in transport performance. Latvia could benefit from the opportunities of the Strategic Technologies for Europe Platform initiative to boost investments in critical technologies to support the transformation of industry. Latvian regions also need support in accelerating the transition to the circular economy (Annex 9) and in protecting nature and restoring biodiversity, leading to a restoration of the carbon sinks (Annex 6).

To facilitate these investments, there is a need to strengthen the capacity of municipalities and successfully complete the administrative-territorial reform, including a financing reform of municipalities. The municipalities' capacity to plan, finance and manage investment projects should be strengthened. Reforms providing municipalities with more own-source revenue could strengthen their capacity to invest. These reforms could be accompanied by sufficient administrative capacity for municipal services to develop and implement high-quality investment projects. The municipalities could be made more financially autonomous and more business-friendly because the location of businesses ultimately raises local tax revenues. This concerns especially the border regions to the east (mainly Latgale) that in addition to its economic handicap faces new challenges and new socio-economic conditions caused by Russia's war of aggression against Ukraine (such as the breakdown of trade) that negatively impacts the ability to attract investors, the decisions of entrepreneurs and limits the capacity to invest EU funds.

There are major investment needs in the regions bordering Russia and Belarus, mainly Latgale – and the Russian war of aggression against Ukraine has further aggravated the situation. Peripheral regions bordering Russia and Belarus have been performing under the national averages in Latvia for decades. The GDP per capita in Latgale region was only 35% of the EU average, placing it among the poorest in the EU. More concerted effort could help in overcoming increasing disparities of the region and to bring it into line with the rest of Latvia and the EU. With GDP growth rates well below national averages, the gap with other Baltic regions and the rest of the EU is set to increase. Latgale observed a depopulation of nearly 20% in 2013-2021 alone. Low productivity, low incomes and negative demographic trends have restrained access to services. The Russian war of aggression against Ukraine has led to economic sanctions being applied against Russia and Belarus with cross-border activities being curtailed, which has disproportionately and adversely affected border regions such as Latgale, leading to their further decline in potential growth.

Investments in administrative capacity and in a variety of sectors (such as energy efficiency, healthcare, social services and long-term care, social entrepreneurship, skills and vocational training) could help to alleviate the situation. The situation on the ground could be improved by national and local authorities having more administrative capacity to devise and implement projects that are key to ensuring further convergence of the regions, including social cohesion.

Latvia has a relatively small banking sector with a strong presence of banks from elsewhere in the Nordic region. The capital market remains relatively underdeveloped. At the end of September 2023, banks' total assets were equivalent to 66.8% of GDP, significantly below the EU average (257%) and also below the level reached in 2017 (104.9%). The size of the sector has been shrinking as banks servicing non-residents have substantially downsized their operations following the introduction of stricter anti-money laundering rules. The banking sector is highly concentrated, and borrowing costs are among the highest in the EU in almost all lending segments. The capitalisation of the stock market and the number of companies quoted on the stock exchange are very small compared to other EU countries, even lagging behind Lithuania and Estonia. In addition, the level of activity in the bond market is also low. Due to its integration with the Nordic and Baltic banking systems Latvia's banking sector may be exposed to spillover risks from these regions.

The financial system of Latvia remains stable, and the ability of credit institutions to absorb shocks is good. Latvian banks' capital-adequacy ratio continues to exceed the EU average (22.6% vs an EU average of 19.6% in Q3-2023) and the resilience of credit institutions has been strengthened by a substantial rise in their profitability. Return on equity has registered record highs (22.3% in Q3-2023), more than double the EU average (9.9%), on the back of rising market interest rates, which were passed through more rapidly into income from loans than into expenses on deposits. The results of macroeconomic stress tests suggest that the resilience of significant credit institutions to potential shocks is good. However, the positive effect of high interest rates on banks' net interest income could be offset by a deterioration in the quality of the credit portfolio. The liquidity ratios of Latvian banks remain very high, and the cost-to-income ratio (34.5% in Q3-2023) is low relative to euro area peers.

Despite weakening economic growth, borrowers' solvency has not worsened in general, and non-performing loans have continued to decrease. The share of non-performing loans as a percentage of total loans decreased to 1.2% in Q3-2023, the lowest level since the financial crisis in 2008. Borrowers' solvency has been supported by both savings built up during the pandemic and government support measures. Furthermore, total private-sector indebtedness remains low. Nevertheless, high inflation and higher interest rates are putting pressure on borrowers' ability to service their debt, especially given the high prevalence of variable-interest-rate loans in banks' portfolios. To address this problem, the Latvian Parliament on 6 December 2023 passed measures to assist mortgage borrowers by reducing their interest payments for one year by 30%, with a maximum of 2 percentage points of the interest rate they pay fixed for the period. To finance the measure, a fee of 0.5% of the total amount of mortgage loan balances will skim excess profits from banks and credit providers operating in Latvia. These measures came into force on 1 January 2024. However, even though non-financial corporations (NFCs) show stable financial indicators in general, the quality of the loan portfolio has slightly worsened in construction and manufacturing, so credit risk needs to be carefully assessed.

Funding risks for Latvian credit institutions remain low in general, as domestic deposits significantly exceed issued loans. Domestic deposits reached 83.3% of the total amount of financing in September 2023, and their annual rise compared with September 2022 was 9.3%, mainly explained by the strong increase in NFC deposits. At the same time, deposits from foreign customers continue to be on a downward trend. In March 2023, their share of total deposits had dropped to 12.2%, down from more than 40% in 2018. Thanks to the strong domestic customer-deposit base, Latvian credit institutions do not heavily rely on wholesale financial markets for funding (around 21%), nor do they rely heavily on their cross-border parent banking groups.

Lending remains weak, weighing on investment and economic activity, although lending for real estate is outperforming. After a prolonged drop for several years, lending activity to NFCs has increased, albeit slowing down again in recent months. A rise in long-term business loans over 2023 was mainly observed in real estate activities. This helps explain why Latvian credit institutions' exposure to commercial real estate (CRE) in the total portfolio is relatively high compared to EU peers. In Q2-2023, these exposures represented 54% of banks' total

Table A18.1:**Financial Soundness Indicators**

	2017	2018	2019	2020	2021	2022	2023	EU	Median
Total assets of the banking sector (% of GDP)	104.9	78.2	74.3	79.9	74.4	69.5	66.8	257.0	184.6
Share (total assets) of the five largest banks (%)	73.6	80.9	83.2	87.8	87.4	88.2	-	-	69.6
Share (total assets) of domestic credit institutions (%)[1]	48.4	32.9	33.9	34.2	15.2	14.7	13.8	-	62.9
NFC credit growth (year-on-year % change)	2.1	3.6	-0.6	-0.7	-1.1	8.8	-1.0	-	2.4
HH credit growth (year-on-year % change)	0.6	0.7	0.9	0.5	6.4	3.8	2.9	-	1.4
Financial soundness indicators:[1]									
- non-performing loans (% of total loans)	5.6	5.3	3.9	4.6	2.1	1.4	1.2	1.8	1.8
- capital adequacy ratio (%)	20.6	22.3	23.4	26.8	29.7	24.1	22.6	19.6	20.1
- return on equity (%)[2]	7.6	9.2	9.6	5.2	4.5	10.2	22.3	9.9	13.2
Cost-to-income ratio (%)[1]	58.4	61.3	62.4	64.5	58.5	47.1	34.5	52.8	44.9
Loan-to-deposit ratio (%)[1]	60.6	70.7	70.7	63.5	60.6	72.4	83.3	93.3	80.2
Central bank liquidity as % of liabilities	1.0	0.2	0.1	6.2	2.9	2.3	0.4	-	0.7
Private sector debt (% of GDP)	75.6	69.8	66.4	65.2	58.5	52.5	-	133.0	118.4
Long-term interest rate spread versus Bund (basis points)	51.7	50.6	59.5	44.8	37.1	113.0	139.4	107.7	104.2
Market funding ratio (%)	13.0	13.8	15.7	16.6	21.3	20.8	-	50.8	39.8
Green bonds outstanding to all bonds (%)[3]	-	-	-	0.2	1.3	1.8	1.9	4.0	2.7

1-3 **4-10** **11-17** **18-24** **24-27** Colours indicate performance ranking among 27 EU Member States.

1Last data: Q3 2023.
2Data are annualised.
3Data available for EA countries only, EU average refers to EA area.
Source: ECB, Eurostat.

portfolio of loans to NFCs and 23% of all loans, according to the European Banking Authority's Risk Dashboard. The sluggish pace of lending to other sectors and SMEs and the relatively high loan interest rates can be partly explained by the high degree of market concentration in the banking sector. This high degree of concentration is reflected in lending conditions being more stringent and lending rates less attractive than those offered in other euro area countries. But demand factors – such as the willingness of companies to invest and their financial position – and the prevalence of the shadow economy are also involved. At the same time, banks have become more cautious. The role of non-bank financial intermediation has gradually increased in Latvia over the past few years, with the assets of the non-bank financial sector standing at almost a quarter of the assets of banks at the end of 2022.

Activity in the housing market in Latvia is decreasing, hampered by high financing costs and the unaffordability of new dwellings. From 2010 to the end of 2023, house prices increased more than 210% – the fourth highest rate in the EU over this period. However, the risks of significant declines in house prices are low, as the market has recorded persistently weak supply. In parallel, lending to households is also showing signs of slowing activity. Higher interest rates, weak economic activity and high inflation reduce households' risk appetite to take on large long-term liabilities.

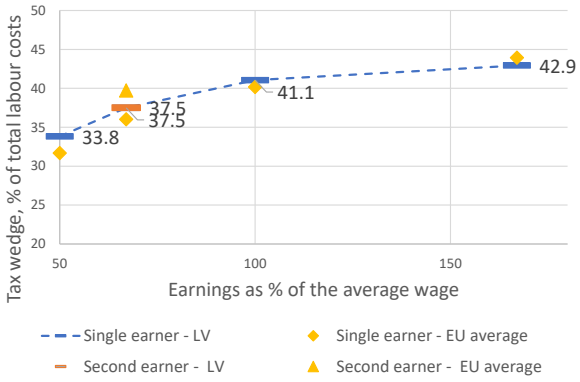
The Latvian Central Bank has re-calibrated some macroprudential measures to strengthen the resilience of the financial system. In December 2023, the Latvian Central Bank decided to start implementing a positive neutral CCyB rate of 0.5% from December 2024 and of 1% from June 2025. Since CRE market liquidity has generally improved and loss rates have fallen compared with the period of the global financial crisis and its aftermath, the Latvian Central Bank also decided to adjust the risk weighting for CRE exposures to 80% from 30 June 2024, compared with the situation in 2007, when a 100% risk-weighting requirement was implemented. Both measures aim to build up loss-absorbing capacity, which can protect the banking sector from the negative effects of potential downturns in the property market and/or financial cycle. Moreover, and taking effect at the beginning of 2023, the capital buffer requirements for three of the five other systemically important institutions were increased by 0.25 percentage points. Finally, Latvia's central bank has adjusted the measures taken in accordance with Article 124 of the Capital Requirements Regulation ([130]).

([130])The Latvian Central Bank estimates that the cumulative effect of the CCyB and the measures under Article 124 of the Capital Requirements Regulation will be tightening.

This annex provides an indicator-based overview of Latvia's tax system. It includes information on the tax structure (the types of tax that Latvia derives most of its revenue from), the tax burden on workers, and the progressivity and redistributive effect of the tax system. It also provides information on tax collection and compliance.

Latvia's tax revenues are relatively low in relation to its GDP. Table A19.1 shows that Latvia's tax revenues were considerably below the EU aggregate in 2022 (at about 30.3% of GDP as compared with 40.2% for the EU as a whole). Revenues from labour taxation were below the EU aggregate, while revenues from consumption taxes and (to a lesser extent) environmental taxes exceeded the EU aggregate as a share of GDP. Revenues from property taxes as a percentage of GDP were below the EU aggregate but were significantly higher than in Baltic peers Lithuania and Estonia. In 2023, country-specific recommendations to Latvia included one to 'broaden taxation, including of property and capital'. Tax measures related to the 2024 budget included the introduction of a corporate income tax advance payment of 20% of the previous year's profits that is payable by credit institutions and consumer credit (loan) providers, as well as increases in excise rates on alcoholic beverages and tobacco products. Pollution and resources taxes only account for 4.9% of environmental taxes, so there could be potential to strengthen the application of the 'polluter pays' principle. Latvia has already implemented four of the six types of pollution and resources taxes (i.e. taxes on NOx emissions, waste landfilling and incineration, discharge of waste into water, and plastic products).

Graph A19.1: **Tax wedge for single and second earners as a % of total labour costs, 2023**



The second earner tax wedge assumes a first earner at 100% of the average wage and no children. For the methodology of the tax wedge for second earners, see OECD, 2016, *Taxing Wages 2014-2015*.
Source: European Commission

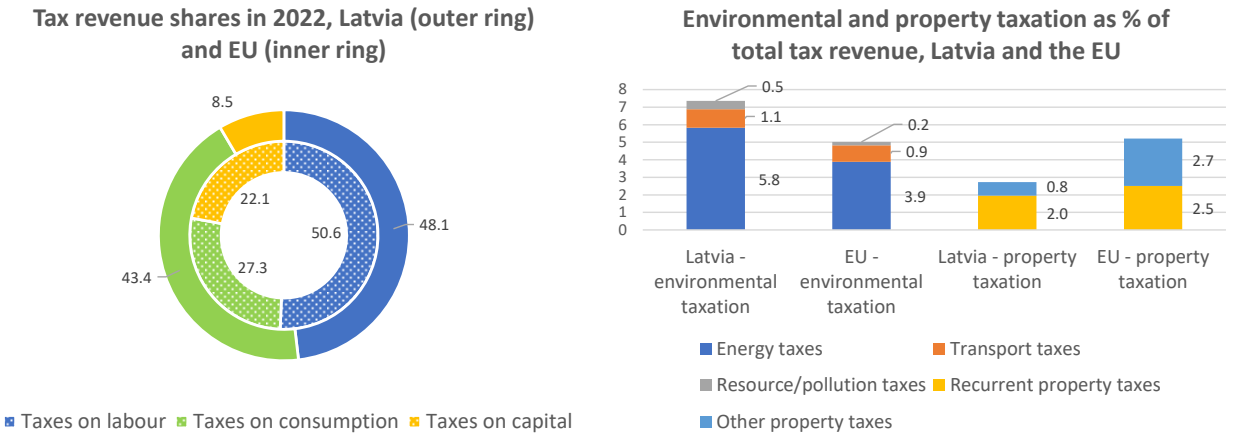
Latvia's labour tax burden is still higher than the EU average for low earners. Graph A19.1 shows that, despite significant reforms in recent years (including the lowering of the tax burden on labour and the introduction of some progressivity

Table A19.1:**Taxation indicators**

		Latvia					EU-27				
		2010	2020	2021	2022	2023	2010	2020	2021	2022	2023
Tax structure	Total taxes (including compulsory actual social contributions) (% of GDP)	28.3	31.0	30.7	30.3		37.9	40.0	40.4	40.2	
	Labour taxes (as % of GDP)	14.3	15.5	15.1	14.6		20.0	21.3	20.7	20.3	
	Consumption taxes (as % of GDP)	11.2	13.1	13.0	13.2		10.8	10.7	11.2	11.0	
	Capital taxes (as % of GDP)	2.8	2.4	2.6	2.6		7.1	8.0	8.6	8.9	
	Of which, on income of corporations (as % of GDP)	1.0	0.7	0.9	1.0		2.4	2.5	3.0	3.4	
	Total property taxes (as % of GDP)	1.0	1.0	1.0	0.8		1.9	2.3	2.2	2.1	
	Recurrent taxes on immovable property (as % of GDP)	0.7	0.7	0.7	0.6		1.1	1.2	1.1	1.0	
	Environmental taxes as % of GDP	3.0	3.0	2.8	2.2		2.4	2.2	2.3	2.0	
Progressivity & fairness	Tax wedge at 50% of average wage (Single person) (*)	42.4	35.0	35.3	33.5	33.8	33.9	31.7	32.1	31.8	31.7
	Tax wedge at 100% of average wage (Single person) (*)	44.0	42.3	40.5	40.4	41.1	41.0	40.1	39.9	40.0	40.2
	Corporate income tax - effective average tax rates (1) (*)		17.0	17.0	17.0			19.5	19.0	19.0	
	Difference in Gini coefficient before and after taxes and cash social transfers (pensions excluded from social transfers) (2) (*)	5.8	5.4	5.5	5.5		8.6	8.1	8.2	7.9	
Tax administration & compliance	Outstanding tax arrears: total year-end tax debt (including debt considered not collectable) / total revenue (in %) (*)		9.4	9.9				40.9	35.5		
	VAT Gap (% of VAT total tax liability, VTTL)(**)	31.0	9.0	7.3	4.0			9.7	5.4		

(1) Forward-looking effective tax rate (OECD).
(2) A higher value indicates a stronger redistributive impact of taxation.
(*) EU-27 simple average.
(**) Forecast value for 2022, if available. For more details on the VAT gap, see European Commission, Directorate-General for Taxation and Customs Union, 2023, *VAT gap in the EU*, https://data.europa.eu/doi/10.2778/911698.
For more data on tax revenues as well as the methodology applied, see the Data on Taxation webpage, https://ec.europa.eu/taxation_customs/taxation-1/economic-analysis-taxation/data-taxation_en.
Source: European Commission and OECD

Graph A19.2: **Tax revenues from different tax types, % of total revenue**



Source: European Commission

for personal income tax rates), the labour tax wedge for Latvia in 2023 was higher than the EU average for single people earning the average wage or less. The tax wedge at higher earnings levels was close to but somewhat below the EU average. This means that labour taxation in Latvia was less progressive than in the EU on average. The ability of the tax and benefits system to reduce income inequality was also significantly below the EU average in 2022 (Table A19.1).

The shadow economy remains extensive. Surveys of company owners and managers indicate that Latvia's shadow economy accounted for 26.5% of its GDP in 2022, which was higher than in Latvia's Baltic peers (25.8% in Lithuania and 18% in Estonia). The biggest component of the shadow economy is underreporting of salaries (estimated at 46.7% of Latvia's shadow economy), with an average of 25% of total salaries being paid informally ('envelope wages'). The construction (34.5%) and retail (30.5%) sectors had the highest estimated shares of shadow activity in 2022 ([131]). Tax arrears increased slightly by 0.5 pps to 9.9% of total net revenue in 2021 but were still well below the EU-27 average of 35.5%. At the same time, 2022 fast estimates point to a further decrease in the VAT gap (the gap between revenues actually collected and the theoretical tax liability) from 7.3% in 2021 to 4.0% in 2022 (Table A19.1). Latvia is continuing to implement its RRP measures to reduce the shadow economy and improve its capacity to fight economic crime as well as measures to strengthen tax and customs administration ([132]).

([131])Stockholm School of Economics Riga, 2023, *Shadow Economy Index for the Baltic Countries*, https://www.sseriga.edu/shadow-economy-index-baltic-countries.

([132])Ekonomisko lietu tiesas vadītājs: VID ir viens no korupcijas perēkļiem valstī - nra.lv, https://nra.lv/latvija/408483-ekonomisko-lietu-tiesas-vaditajs-vid-ir-viens-no-korupcijas-perekliem-valsti.htm.

Table A20.1:**Key economic and financial indicators**

	2004-07	2008-12	2013-20	2021	2022	2023	forecast 2024	forecast 2025
Real GDP (y-o-y)	10.2	-2.7	1.8	6.7	3.0	-0.3	1.7	2.6
Potential growth (y-o-y)	.	-0.3	2.3	2.7	1.5	1.9	1.9	2.1
Private consumption (y-o-y)	12.5	-3.6	1.1	7.3	7.2	-1.3	1.7	2.0
Public consumption (y-o-y)	3.8	-2.9	2.9	3.5	2.8	7.0	2.6	3.3
Gross fixed capital formation (y-o-y)	21.4	-6.9	1.0	7.2	0.6	8.2	2.8	3.5
Exports of goods and services (y-o-y)	14.5	4.5	3.6	9.0	10.3	-5.9	-0.4	3.1
Imports of goods and services (y-o-y)	19.2	-2.2	3.4	15.1	11.1	-2.8	0.4	3.1
Contribution to GDP growth:								
Domestic demand (y-o-y)	14.8	-5.0	1.4	6.5	4.8	2.4	2.2	2.7
Inventories (y-o-y)	0.3	-1.0	0.3	3.7	-1.0	-0.5	0.0	0.0
Net exports (y-o-y)	-4.9	2.8	0.1	-3.5	-0.9	-2.1	-0.5	-0.1
Contribution to potential GDP growth:								
Total Labour (hours) (y-o-y)	.	-1.8	-0.4	0.0	-0.3	0.2	0.1	0.1
Capital accumulation (y-o-y)	.	1.3	0.7	0.9	1.0	1.2	1.1	1.1
Total factor productivity (y-o-y)	.	0.2	2.0	1.8	0.8	0.5	0.7	0.9
Output gap	6.0	-5.2	0.8	-0.1	1.3	-0.9	-1.1	-0.6
Unemployment rate	8.8	15.3	8.7	7.6	6.9	6.5	6.5	6.3
GDP deflator (y-o-y)	12.6	2.1	2.3	3.8	11.8	5.4	4.2	2.5
Harmonised index of consumer prices (HICP, y-o-y)	7.4	4.6	1.3	3.2	17.2	9.1	1.6	2.0
HICP excluding energy and unprocessed food (y-o-y)	6.5	3.4	1.7	2.0	11.3	9.8	3.2	2.3
Nominal compensation per employee (y-o-y)	24.4	1.5	7.3	8.5	12.2	12.6	5.7	4.7
Labour productivity (real, hours worked, y-o-y)	8.0	2.5	2.9	7.9	-1.8	0.0	1.2	2.2
Unit labour costs (ULC, whole economy, y-o-y)	15.8	0.2	5.2	-0.9	12.0	13.0	4.2	2.3
Real unit labour costs (y-o-y)	2.9	-1.8	2.9	-4.5	0.2	7.2	0.0	-0.2
Real effective exchange rate (ULC, y-o-y)	11.1	-1.8	3.3	-1.7	7.0	5.1	-0.8	-0.2
Real effective exchange rate (HICP, y-o-y)	2.9	1.9	0.8	0.3	6.4	3.8	.	.
Net savings rate of households (net saving as percentage of net disposable income)	-7.7	-2.2	-2.7	1.9	-7.2	.	.	.
Private credit flow, consolidated (% of GDP)	27.7	-2.2	-0.1	0.9	3.1	.	.	.
Private sector debt, consolidated (% of GDP)	89.9	115.8	73.7	58.5	53.2	.	.	.
of which household debt, consolidated (% of GDP)	31.5	42.3	22.6	19.5	17.9	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	58.4	73.5	51.1	39.0	35.3	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (1)	.	9.9	5.0	1.7	1.3	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-9.4	5.1	2.7	0.8	1.3	-1.4	-0.8	0.0
Corporations, gross operating surplus (% of GDP)	31.0	29.4	25.7	26.8	27.2	23.9	24.0	24.2
Households, net lending (+) or net borrowing (-) (% of GDP)	-4.9	0.8	0.9	3.8	-0.7	1.1	3.3	3.5
Deflated house price index (y-o-y)	17.0	-11.3	4.2	7.2	0.4	-3.9	.	.
Residential investment (% of GDP)	4.5	2.9	2.4	2.8	2.4	3.0	.	.
Current account balance (% of GDP), balance of payments	-16.4	-2.0	0.4	-3.9	-4.8	-4.0	-3.1	-2.9
Trade balance (% of GDP), balance of payments	-17.2	-5.3	-0.7	-3.2	-4.6	-3.9	.	.
Terms of trade of goods and services (y-o-y)	1.4	-0.2	1.1	-1.6	-0.6	3.6	0.9	0.1
Capital account balance (% of GDP)	1.3	2.2	1.8	1.4	0.7	2.0	.	.
Net international investment position (% of GDP)	-59.7	-77.0	-49.6	-27.3	-26.8	-24.6	.	.
NENDI - NIIP excluding non-defaultable instruments (% of GDP) (2)	-30.1	-37.9	-2.1	19.4	17.1	19.8	.	.
IIP liabilities excluding non-defaultable instruments (% of GDP) (2)	93.3	132.8	120.1	98.3	91.9	88.2	.	.
Export performance vs. advanced countries (% change over 5 years)	.	.	10.6	17.8	19.2	8.3	.	.
Export market share, goods and services (y-o-y)	14.1	1.6	2.8	-2.6	3.6	-6.9	-3.7	-0.5
Net FDI flows (% of GDP)	-5.1	-2.6	-1.9	-2.5	-3.2	-1.4	.	.
General government balance (% of GDP)	-0.7	-5.6	-1.3	-7.2	-4.6	-2.2	-2.8	-2.9
Structural budget balance (% of GDP)	.	.	-1.6	-7.3	-5.1	-1.9	-2.4	-2.7
General government gross debt (% of GDP)	11.2	38.1	39.2	44.4	41.8	43.6	44.5	46.3

(1) domestic banking groups and stand-alone banks, EU and non-EU foreign-controlled subsidiaries and EU and non-EU foreign-controlled branches.
(2) NIIP excluding direct investment and portfolio equity shares.
Source: Eurostat and ECB as of 2024-5-17, where available; European Commission for forecast figures (Spring forecast 2024).

This annex assesses fiscal sustainability risks for Latvia over the short, medium and long term. It follows the multi-dimensional approach of the European Commission's 2023 Debt Sustainability Monitor, updated based on the Commission 2024 spring forecast.

1 – Short-term risks to fiscal sustainability are low. The Commission's early-detection indicator (S0) does not point to any major short-term fiscal risks (Table A21.2) ([133]). Government gross financing needs are estimated at around 7% of GDP in 2024-2025 (Table A21.1, Table 1). Financial markets' perceptions of sovereign risk are positive, as confirmed by the ratings of the main agencies.

2 – Medium-term fiscal sustainability risks appear low.

The baseline DSA shows that the government debt ratio is projected to increase but remain at a moderate level over the medium term, with debt rising to 56% of GDP in 2034 (Graph 1, Table 1) ([134]). The assumed structural primary balance (a deficit of 1.4% of GDP prior to changes in ageing costs) contributes to these developments. Compared to historical data, the deficit appears plausible, indicating that the country has room for corrective action. Indeed, most of past fiscal positions were more stringent than the one assumed in the baseline (Table A21.2) ([135]). The debt dynamics benefit from a small favourable snowball effect in 2025-2034.

The baseline projections are stress-tested against four alternative deterministic scenarios to assess the impact of changes in key assumptions relative to the baseline (Graph 1). Under the *historical structural primary balance (SPB)* scenario (i.e. the SPB returns to its historical 15-year average of -1.6% of GDP) the debt ratio would be about 2 pps. higher than under the baseline in 2034. Under the *adverse interest-growth rate differential* scenario (i.e. the interest-growth rate differential deteriorates by 1 pp. compared with the baseline), the debt ratio would be about 4 pps. of GDP higher in 2034 than under the baseline. Under the *financial stress* scenario (i.e. interest rates temporarily increase by 1 pp. compared with the baseline) the government debt ratio would be similar in 2034, as would be the case for the *lower structural primary balance* scenario (i.e. the projected deterioration in the SPB in 2024 is increased by half).

The stochastic projections indicate low risk, pointing to limited sensitivity of the baseline projections to plausible unforeseen events ([136]). These stochastic simulations indicate a 67% probability that the debt ratio will be higher in 2028 than in 2023, implying low risks given the current debt level. In addition, the uncertainty surrounding the baseline debt projections is moderate, as measured by the difference between the 10th and 90th debt distribution percentiles, which is at 36 pps. of GDP in five years' time (Graph 2).

3 – Long-term fiscal sustainability risks appear overall low. This assessment is based on the combination of two fiscal gap indicators, capturing the required fiscal effort to stabilise debt (S2 indicator) and bring it to 60% of GDP (S1

([133])The S0 is a composite indicator of short-term risk of fiscal stress. It is based on a wide range of fiscal and financial-competitiveness indicators that have proven to be a good predictor of emerging fiscal stress in the past.

([134])The assumptions underlying the Commission's 'no-fiscal policy change' baseline include in particular: (i) a structural primary deficit, before changes in ageing costs, of 1.4% of GDP from 2024 onwards; (ii) inflation converging linearly towards the 10-year forward inflation-linked swap rate 10 years ahead (which refers to the 10-year inflation expectations 10 years ahead); (iii) the nominal short- and long-term interest rates on new and rolled over debt converging linearly from current values to market-based forward nominal rates by T+10; (iv) real GDP growth rates from the Commission 2024 spring forecast, followed by the EPC/OGWG 'T+10 methodology projections between T+3 and T+10 (average of 1.3%); (v) ageing costs in line with the 2024 Ageing Report (European Commission, Institutional Paper 279, April 2024). For information on the methodology, see the 2023 Debt Sustainability Monitor (European Commission, Institutional Paper 271, March 2024).

([135])This assessment is based on the fiscal consolidation space indicator, which measures the frequency with which a tighter fiscal position than assumed in a given scenario has been observed in the past. Technically, this consists in looking at the percentile rank of the projected SPB within the distribution of SPBs observed in the past in the country, taking into account all available data from 1980 to 2023.

([136])The stochastic projections show the joint impact on debt of 10,000 different shocks affecting the government's budgetary position, economic growth, interest rates and exchange rates. This covers 80% of all the simulated debt paths and therefore excludes tail events.

indicator) in the long term ([137]). This assessment is driven by a projected decrease in age-related spending against a background of moderate debt.

The S2 indicator points to low fiscal sustainability risks. The indicator shows that, relative to the baseline, the SPB would need to improve by 0.6 pp. of GDP in 2025 to ensure debt stabilisation over the long term. This result is driven by the initial budgetary position (contribution of 1.3 pps.), with the projected decrease in ageing-related spending lowering the required effort (-0.8 pp.). The decline in ageing costs is driven by public pension expenditure (-1.3 pps.) (Table A21.1, Table 2).

The S1 indicator also points to low fiscal sustainability risks. The indicator shows that preventing government debt from exceeding 60% of GDP by 2070 would require an improvement of the fiscal position by 0.7 pp. of GDP in 2025. This limited effort is due to the initial budgetary position (contribution of +1.3 pps.) being partly offset by the current low government debt-to-GDP ratio and the declining ageing costs (-0.3 pp. each) (Table A21.1, Table 2).

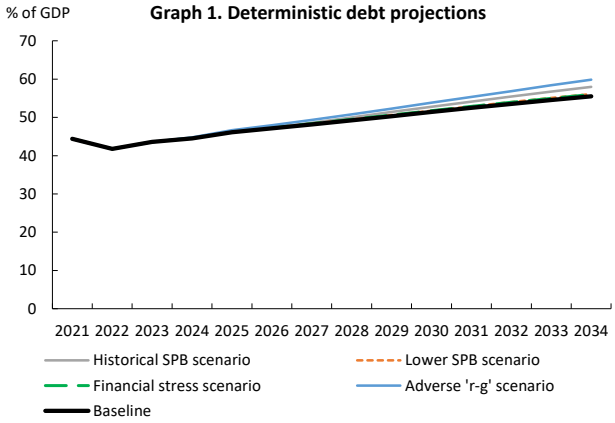
4 – Finally, several additional risk factors need to be considered in the assessment. On the one hand, risk-increasing factors include the recent rise in interest rates, the relatively large share of public debt held by non-residents and the negative net international investment position. On the other hand, risk-mitigating factors include the fact that debt is fully denominated in euro and the low share of short-term debt in total debt.

([137])The S2 fiscal sustainability indicator measures the permanent SPB adjustment in 2025 that would be required to stabilise public debt over an infinite horizon. It is complemented by the S1 indicator, which measures the permanent SPB adjustment in 2025 to bring the debt ratio to 60% by 2070. The impact of the drivers of S1 and S2 may differ due to the infinite horizon component considered in the S2 indicator. For both the S1 and S2 indicators, the risk assessment depends on the amount of fiscal consolidation needed: 'high risk' if the required effort exceeds 6% of GDP, 'medium risk' if it is between 2% and 6% of GDP, and 'low risk' if the effort is negative or below 2% of GDP. The overall long-term risk classification combines the risk categories derived from S1 and S2. S1 may notch up the risk category derived from S2 if it signals a higher risk than S2. See the 2023 Debt Sustainability Monitor for further details.

Table A21.1:**Debt sustainability analysis - Latvia**

Table 1. Baseline debt projections	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Gross debt ratio (% of GDP)	**44.4**	**41.8**	**43.6**	**44.5**	**46.1**	**47.1**	**48.1**	**49.2**	**50.3**	**51.4**	**52.5**	**53.5**	**54.6**	**55.5**
Changes in the ratio	1.7	-2.6	1.8	1.0	1.6	1.0	1.0	1.1	1.1	1.1	1.1	1.0	1.0	1.0
of which														
Primary deficit	6.7	4.2	1.6	1.8	1.5	1.5	1.4	1.3	1.3	1.3	1.3	1.2	1.2	1.2
Snowball effect	-3.7	-5.4	-1.4	-1.4	-1.0	-0.5	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Stock-flow adjustments	-1.4	-1.4	1.6	0.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs (% of GDP)	10.0	4.8	7.7	7.0	7.4	6.6	6.7	6.8	7.0	7.1	7.3	7.4	7.6	7.7

Graph 1. Deterministic debt projections



Graph 2. Stochastic debt projections 2024-2028

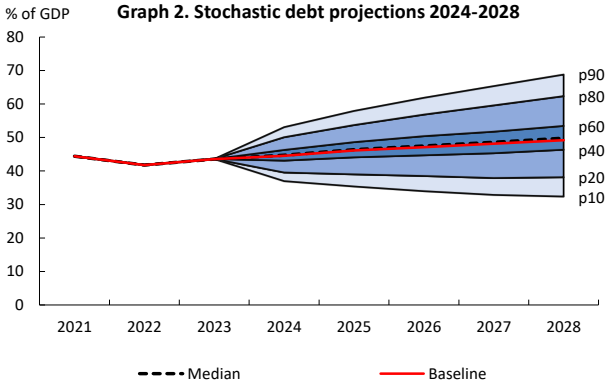


Table 2. Breakdown of the S1 and S2 sustainability gap indicators

		S1	**S2**
Overall index (pps. of GDP)		**0.7**	**0.6**
of which			
Initial budgetary position		1.3	1.3
Debt requirement		-0.3	
Ageing costs		-0.3	-0.8
of which	*Pensions*	-0.7	-1.3
	Health care	0.4	0.5
	Long-term care	0.2	0.3
	Education	-0.2	-0.2

Source: Commission services

Table A21.2: **Heat map of fiscal sustainability risks – Latvia**

Short term	**Medium term - Debt sustainability analysis (DSA)**								**Long term**		
			Deterministic scenarios								
Overall (S0)	**Overall**		Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress	**Stochastic projections**	**S2**	**S1**	**Overall (S1 + S2)**
LOW	**LOW**	Overall	**LOW**	**LOW**	**LOW**	**LOW**	**LOW**	**LOW**	**LOW**	**LOW**	**LOW**
		Debt level (2034), % GDP	55.5	58.0	56.1	59.9	56.0				
		Debt peak year	2034	2034	2034	2034	2034				
		Fiscal consolidation space	71%	76%	73%	71%	71%				
		Probability of debt ratio exceeding in 2028 its 2023 level						67%			
		Difference between 90th and 10th percentiles (pps. GDP)						36.4			

(1) Debt level in 2034. Green: below 60% of GDP. Yellow: between 60% and 90%. Red: above 90%. (2) The debt peak year indicates whether debt is projected to increase overall over the next decade. Green: debt peaks early. Yellow: peak towards the middle of the projection period. Red: late peak. (3) Fiscal consolidation space measures the share of past fiscal positions in the country that were more stringent than the one assumed in the baseline. Green: high value, i.e. the assumed fiscal position is plausible by historical standards and leaves room for corrective measures if needed. Yellow: intermediate. Red: low. (4) Probability of debt ratio exceeding in 2028 its 2023 level. Green: low probability. Yellow: intermediate. Red: high (also reflecting the initial debt level). (5) the difference between the 90th and 10th percentiles measures uncertainty, based on the debt distribution under 10000 different shocks. Green, yellow and red cells indicate increasing uncertainty. (For further details on the Commission's multidimensional approach, see the 2023 Debt Sustainability Monitor)

Source: Commission services